A framework for the transformation of the creative industries in a digital age

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Abstract

The creative industries sector faces a constantly changing context characterised by the speed of the development and deployment of digital information systems and Information Communications Technologies (ICT) on a global scale. This continuous digital disruption has had significant impact on the whole value chain of the sector: creation and production; discovery and distribution; and consumption of cultural goods and services. As a result, creative enterprises must evolve business and operational models and practices to be sustainable. Enterprises of all scales, type, and operational model are affected, and all sectors face ongoing digital disruption. Management consultancy practitioners and business strategy academics have called for new strategy development frameworks and toolkits, fit for a continuously changing world. This thesis investigates a novel approach to organisational change appropriate to the digital age, in the context of the creative sector in Scotland.

A set of concepts, methods, tools, and processes to generate theoretical learning and practical knowing was created to support enterprises to digitally adapt through undertaking journeys of change and organisational development. The framework is called *The AmbITion Approach*. It was developed by blending participatory action research (PAR) methods and modern management consultancy, design, and creative practices. Empirical work also introduced to the framework Coghlan and Rashford's change categories. These enabled the definition and description of the extent to which organisations developed: whether they experienced first order (change), second order (adaptation) or third order (transformation) change. Digital research tools for inquiry were tested by a pilot study, and then embedded in a longitudinal study over two years of twenty-one participant organisations from Scotland's creative sector. The author applied and investigated the novel approach in a national digital development programme for Scotland's creative industries. The programme was designed and delivered by the author and ran nationally between 2012-14. Detailed grounded thematic analysis of the data corpus was undertaken, along with analysis of rich media case studies produced by the organisations about their change journeys.

The results of studies on participants, and validation criteria applied to the results, demonstrated that the framework triggers second (adaptation) and third order change (transformation) in creative industry enterprises. *The AmbITion Approach* framework is suitable for the continuing landscape of digital disruption within the creative sector. The thesis contributes to practice the concepts, methods, tools, and processes of *The AmbITion Approach*, which have been empirically tested in the field, and validated as a new framework for business transformation in a digital age. The thesis contributes to knowledge a theoretical and conceptual framework with a specific set of constructs and criteria that define first, second, and third order change in creative enterprises, and a robust research and action framework for the analysis of the quality, validity and change achieved by action research based development programmes. The thesis additionally contributes to the practice of research, adding to our understanding of the value of PAR and design thinking approaches and creative practices as methods for change.

Acknowledgements

Contents

List of figures

List of published work emerging from the PhD study and thesis

Refereed papers

June 2015   'A framework for the transformation of the incumbent creative industries in a digital age[1], **peer reviewed invited paper presentation.** 10th International Forum on Knowledge Asset Dynamics, 10-12th June, Bari, Italy (with potential publication in *Interventions économiques/Papers in Political Economy[1]*).

July 2014   *'The AmbITion Approach*: examining action research into organisational practice', **peer reviewed invited paper presentation.** iFutures, 22nd July, University of Sheffield (Rudman, 2014a).[2] *(Can be read in full in Appendix 17, below.)*

March 2014   **'**Co-opetition: facilitating peer learning for knowledge exchange via *The AmbITion Approach*', **invited paper presentation**. Beyond The Campus: Higher Education and the Creative Economy, 20th March, Glasgow University (Rudman, 2014b).[3]

Invited keynote addresses

Feb 2014   *'The AmbITion Approach* to digital development for the creative sector', **keynote address**, NARPACA Ticketing Professionals Conference 17-19 February, Brisbane.[4]

Oct 2013   'AmbITions in digital developments', **keynote address**. Colloquia of VI Encuentro de las Artes Escenicas, October 2013, Leon, Mexico

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[1] See http://interventionseconomiques.revues.org/, last accessed 27.01.15.
[2] Paper published in online conference proceedings at:
https://conferencepapers.shef.ac.uk/index.php/iFutures/2014/paper/view/55 , last accessed 11.08.14.
[3] http://www.creative-campus.org.uk/--fourth-workshop.html , last accessed 11.08.14.
[4] Watch the keynote at http://www.ticketingprofessionals.com.au , last accessed 11.08.14.

June 2013	*'Sustainable AmbITions for our Common Wealth'*, **invited paper.** Culturing our Creativity, 17th June, Edinburgh.[5]
Oct 2012	*'The AmbITion Approach* to Digital Development', **keynote address**. II Conferencia Marketing de las Artes, 16th October 2012, Madrid.[6]
Oct 2011	*'Digital AmbITions'*, **keynote address**. Conferencia Marketing de las Artes, 11th October 2012, Madrid.[7]
Oct 2011	*'The AmbITion Approach* to digital development in Scotland', **invited paper presentation.** Creative Entrepreneurship for a Competitive Economy conference, 18th October, Tallinn.[8]

(Appendix 16 provides evidence of press, media, and social media interest in the content of the international keynote addresses).

Other significant reports

2011-2014	'Case studies of digital developments' – documentary series for AmbITion Scotland, written and presented by Hannah Rudman.

Professional and press articles

'Digital Fitness for All', *Arts Professiona,l* February 2014 edition 271.[9]

'Culture's role in environmental change', *The Guardian*, July 15th 2013[10].

'Desarrollos Digitales en las Artes', *Conectando Audiencias*, Issue 6, July 2012[11].

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[5] Watch at https://vimeo.com/68584941 .

[6] Watch the keynote at http://www.youtube.com/watch v=Gt4NRyKJzAQ&feature=share&list=PLEBBUkE6ZAznFoZb7n3CitnFxoBGTeXp3&index=1, last accessed 11.08.14.

[7] Watch the keynote at http://vimeo.com/36112165, last accessed 8.12.14.

[8] See http://www.looveesti.ee/loomemajandusest/suendmused/icalrepeat.detail/2011/10/19/406/-/OWJiMWJhN2RlNTlmZTNmZWUxNDFkOGI3OGUzMWJlYzk=.html , last accessed 11.08.14

[9] See http://www.artsprofessional.co.uk/magazine/271/feature/digital-fitness-all , last accessed 14.05.14.

[10] http://www.theguardian.com/culture-professionals-network/culture-professionals-blog/2013/jul/15/creative-industries-environmental-change

[11] http://asimetrica.org/conectando-audiencias-revista/

1. Introduction

This chapter explains the background and motivations to the research. It proposes the research questions and general approach, and summarises the outline of the thesis.

1.1 Background and motivations

1.1.1 Background to the research - digital disruption

Digitisation - a mass adoption by consumers, enterprises, and governments of connected digital technologies - is a global phenomenon that has completely revolutionised the way that some industries interact with their customers. McKinsey reported that the Internet contributed a tenth of all economic growth in the G–8 countries over the 15 years to 2009 (McKinsey Global Institute, 2011). The disruption of digital technologies has already and continues to have a profound impact on the creative sector. Cultural, creative, arts, and heritage organisations are under pressure to adapt to digitisation rapidly, so that they are fit for business in a digital economy (MTM London, 2013a, p. 7). Within creative enterprises, disruptive digital technologies are transforming numerous established relationships, for example between (a) artists and audiences, (b) arts organisations and places, and even (c) the notion of art and creativity, and the digital economy as a whole. Increasing numbers of audiences consume the arts through digital channels and devices, and while this presents nascent possibilities for creative organisations, it also has significant impact on current practices for the production, distribution, and the creation of meaning for audiences. The penetration of digitisation into some of these relationships has fundamentally altered them. Recent research by Thomson, Purcell and Rainie suggests that the culture of culture in the United States has "gone digital": increasing numbers of arts audiences are consuming performing arts through live or recorded digital broadcasts (Thomson et al., 2013, p. 5). 56% of Europeans say they use the Internet for cultural purposes, 30% doing so at least once a week (Directorate-General for Communication, 2013, p. 8).

The academic literature that focuses on the history and theory of disruptive technologies, disruptive innovation, and creative destruction, reveals that new businesses (with new products and models) inevitably overcome, and make obsolete, the traditional incumbent businesses. The period since 1990 has seen the consistent emergence of new disruptive digital technologies. This has brought the previously "analogue" creative industries to a point of great challenge - for example, the newspaper industry has been threatened, the music industry has been hugely disrupted (Naughton, 2012).

The UK's creative sector became world-class and world-renowned in an analogue era, by understanding how to control its assets. It was the gatekeeper of how assets were distributed, and was the guardian of quality as it influenced how assets were presented and described. It might therefore have been expected, that the historical strengths of the UK's creative industries would support a comfortable transition to digital markets. However, digital technologies have caused disruption: to the way that content is created, produced, discovered, distributed, and consumed. Digital technologies have also disrupted creative services and experiences, through introducing an audience expectation of participation and collaboration. Business uncertainty and disruption in the creative sector has been caused by the impact of digital technologies, and this is set to continue. The *Digital Britain* report (Carter, 2009) was the government's strategic vision for ensuring the UK's place in a global digital economy and stated that digital media was an expected part of modern life, and organisations defined as public service providers (in receipt of public funds) were required to recognise digital technology driven services and offerings as core, not optional. The European Commission's Digital Agenda's key objective is 100% population coverage and 30Mbps+ as average connection speed by 2020[12]. The IT revolution is not yet done (Brynjolfsson and McAfee, 2011).

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[12] "Digital Agenda Scorecard", European Commission, August 2012.
http://eceuropa.eu/information_society/digitalagenda/scoreboard/index_en.htm last accessed 27.08.13.

1.1.2 Motivations for undertaking the research

Digital disruptions and developments require of creative sector organisations new creativity, as well as new products, operational practices, and business models. Creative organisations have struggled to maximise the opportunities of digital technologies because of a piecemeal approach to their operational integration. This approach developed over the long-term due to a fragmented funding and investment landscape, and an external context of rapid change. Creative organisations also suffer a reticent reaction to digital technologies' importance and impact. Especially on:

- audience behaviours (e.g. altering perceptions of proximity and intimacy);

- artistic practices (e.g. on conventions and practices which are socially embedded rituals of experience); and

- business models and practices (e.g. ownership, IP and contracts, new digital production methods, and digital distribution channels and consumption mechanisms) (Department for Culture Media & Sport, 2010).

The *Digital Content Snapshot* of 2009 reported on the digital developments of all of Arts Council England's regularly funded organisations, and concluded that whilst most had some kind of online offering that transmitted information, the best interactive experiences and content were produced by a very small number of organisations. "There is considerable scope for improvement" the report concluded (MTM London, 2009). Similarly, the Minister for Culture and Tourism at the time said "there is a real gap between those institutions who do fantastically well and others who are finding it difficult to catch up" (the Rt Hon Margaret Hodge in *Encouraging Digital Access to Culture* (Department for Culture Media & Sport, 2010, p. 19).

Organisations most likely to thrive in the 21st century it has been said, were those that were moving from a position of 'assimilation' where the digital is assimilated into existing modes of thinking, to 'adaptation' where existing thinking is changed to accommodate the new possibilities and potential of the digital (Thompson,

2011). However, if traditional business models are based on analogue, physically located in time and space experiences, it is difficult to adapt. In *Culture of Innovation: An economic analysis of innovation in arts and cultural organisations*, it is argued that digital innovations broadly impact the whole of a cultural business' practices - new technologies open up possibilities for more effective pursuit of organisational goals (Bakhshi and Throsby, 2010). Arts Council England policy authors stated in 2011 that to develop a sustainable and resilient arts sector that would deliver multiple types of value to the nation, required of them constant innovation, a willingness to adapt organisational and business models and an openness to change. They admit:

> For most arts organisations… digital has not yet fundamentally altered their core practice or business model… relatively few will be using digital technology to anything like its full potential (Fleming and Erskine, 2011).

Whilst Fleming and Erskine championed the commitment to support the creative sector's digital development through investment in the innovation funds that were the support mechanisms offered, they simultaneously recognised the rub that:

> It is important then that the digital imperative for the arts does not enable some organisations to swagger across the digital divide, leaving the rest of the arts to peer longingly yet impotently toward the other side… (Fleming and Erskine, 2011).

Creative sector organisations were under pressure from stakeholders, such as governments and funders, to ensure they continue to thrive (Department for Culture Media & Sport, 2013). This meant the creative sector must digitise relationships with their audiences; and adapt their products, operations, and business models for delivery online. At the same time, they must remain true to core missions of developing community-embedded relationships, and delivering live, analogue experiences (MTM London, 2012). However, this is not necessarily the focus of support and funding. The report of a 2014 survey of 947 English arts organisations stated that 70 per cent of arts and cultural organisations cited lack of funding and time, and over a third still felt that they did not have the in-house

skills, IT systems, or the necessary expert advice to meet their digital aspirations (MTM London, 2014). The best funded approaches to help the creative sector digitalise focussed on funding new digital innovations and products, rather than supporting digital adaptation across all areas of an enterprise. Whilst this created the potential for brand new digital products and services, only a few organisations received the funding. The majority of organisations remained under-supported. None of the available funds focussed on encouraging "…the others who are finding it difficult to catch up" (Department for Culture Media & Sport, 2010). Impactful, low cost models of organisational learning and development are needed, in order to facilitate the digital adaptation of creative enterprises facing the continuing impact of disruptive technologies.

1.1.3 Focus of the research

AmbITion[13] was a support programme that focused on whole organisation digital development, and that made its offer accessible to any creative organisation. It was designed and delivered by the author in England and Scotland. AmbITion programmes offered organisational development/business support around digital opportunities. Initially, AmbITion was a pilot programme for the arts and cultural sector in the North West and East regions of England, funded by £1.5m from The National Lottery, via Arts Council England, between 2007-2009. AmbITion was then invited to move to Scotland, where it became a national digital development programme for the creative sector of Scotland. Between 2009 and 2014, it was £2.2m programme, funded by The National Lottery, through Creative Scotland. The programme touched most of the creative sector in Scotland (c. 540 enterprises). Furthermore, through its digital development framework, *The AmbITion Approach,* the programme helped over ninety organisations develop and implement organisation-wide digital strategies. Additionally, around forty more creative enterprises were supported financially to invest in digital infrastructure or digital content projects. AmbITion Scotland closed on 31st March 2014. Throughout the current age of austerity that started in 2009, funds for the

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[13] http://getambition.com/ last accessed 17.11.14.

digital development of traditional businesses dwindled across the UK's creative sector, and internal and external finance for business model development or organisational development is now scarce. The author of this dissertation identified that *The AmbITion Approach,* the core methodology of AmbITion programmes, was worth researching as a change and development framework. It seemed suited to traditional, incumbent businesses challenged by digital disruption. However, its efficacy and impact needed to be validated, and so action and research to achieve this was undertaken as a PhD study between 2011-2015.

1.1.4 External demand that justified the research

Action research projects are specific to their situations and contexts, in this case the traditional creative sector. They do not aim to create universal knowledge. However extrapolation from a local situation to more general situations is important, so it was always important for this research project to identify external demand (Coghlan and Brannick, 2010, p. 143). Practitioners and academics have recently considered the impact of continuous changes in markets, technologies, and external risk. They have questioned the relevance of existing frameworks and tools for developing and implementing successful business strategies. The field of change management for business transformation is in flux. Management techniques focused on emerging or disruptive technologies are immature, and are often under-appreciated by managers (Linton and Walsh, 2008). Groen and Walsh have discussed how managing emerging technologies is critical, but recognise that "better techniques are needed: for their management, to create policy and educate professionals to commercialise and govern them" (Groen and Walsh, 2013, p. 1). The Sir Donald Gordon Chair of Entrepreneurship and Innovation, at London Business School, Professor Michael G. Jacobides, acknowledged that academic research should account for and try to address at least some of the practitioners' concerns and needs, reflecting: "Let's rethink these frameworks together with people who use them in their professional practice, and revise the strategy canon" (Webb, 2014). The academic community in the field of

business and management has recognised the need for new frameworks for business transformation.

Practitioners also recognised the need for new frameworks to support business transformation. For example, Vice President of Corporate Strategy at Unilever, Mark Wilson, complained that strategic frameworks were out of date in 2014, and that the trigger point for adopting new thinking in an organisation often arrived late – "when you have worn out the old stuff and it clearly doesn't work anymore or when business performance has slumped" (Webb, 2014). Similarly, the consultancy community is seeking new validated frameworks. Frank Gluck, Managing director emeritus of global consultancy firm McKinsey, and founder of the firm's Strategy Practice, reflected on current strategy frameworks in 2014: "I think the real opportunity in strategy development is on the synthesis side — figuring out how to deal with a faster-changing environment" (Webb, 2014). There is well-expressed need to generate fresh, empirically tested, and tried in the field, strategy development frameworks and toolkits fit for a landscape of continuous digital disruption.

1.1.5 Contribution of the research

This PhD (action and) research developed the framework of *The AmbITion Approach,* and applied it in the field. The research analysed the data gathered through a longitudinal study of creative enterprises working with the approach, to provide empirical evidence to prove the validity of the framework's concepts, methods, and tools. The work makes three main contributions:

1. to **practice** in the field - the concepts, methods, tools, and processes of *The AmbITion Approach* have been tested in the field to support creative enterprises as they face ongoing digital disruption, and have been validated as a new framework for business transformation in the creative industries in a digital age (see 8.2.1 below). Additionally, information systems have been proven as effective mechanisms for running digital development programmes for enterprises spread over large geographic areas.

2. to **knowledge** - a theoretical and conceptual framework with a specific set of constructs and criteria that define first, second, and third order change in

creative enterprises, visualised as a conceptual framework (see 8.2.2.1 below), and a robust research and action framework for the analysis of the quality, validity and change achieved by action research based development programmes (see 8.2.1.2, below) have been developed.

3. to the **practice of research** - adding to our understanding of the value of PAR and design thinking approaches and creative practices as methods for change. The tools of PAR were also discovered to be particularly effective as qualitative and quantitative research methods when used in online, networked information systems (see 8.1.2 and 8.2.3, below).

1.2 The Research

1.2.1 Research questions

New frameworks for business change and transformation are sought for the current landscape of continuous digital disruption (1.1.4, above). Cheaper mechanisms for delivering organisational and digital development for mainstream traditional businesses are required (1.1.3, above). This doctoral research developed, tested, and studied the concepts, methodologies, and tools of a digital development framework called *The AmbITion Approach*, to discover:

1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?

2. Is new practical and theoretical knowledge generated by the enterprises that engage with *The AmbITion Approach*?

3. Could the concepts, methodologies and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age?

1.2.2 An action and research study

The research questions were explored by empirical work. Action was taken to improve and develop *The AmbITion Approach*, its effectiveness was then investigated through the study of twenty one Scottish creative organisations and

practices that engaged with it. These enterprises were of differing focus, scale, and operational model. The organisations were participants on the second phase of the AmbITion Scotland programme, which ran between October 2012 and March 2014, and provided the context and setting for the longitudinal examination (a first phase of the AmbITion Scotland programme ran 2009 – 2011, following a pilot programme in England which ran between 2007-2009).

Action was taken to set up an information system to collect the data from the creative enterprises in Scotland. Data was gathered by research tools embedded in the online mechanisms (a Wordpress powered social network website[14] and linked social media channels) that were the information system used by the participant organisations of the AmbITion Scotland programme. The research tools were developed, tested, and iterated in a pilot study. The data gathered by the tools was qualitative and quantitative, to capture both the experience of organisations going through *The AmbITion Approach,* as well the facts about their change journeys.

The strategy for the evaluation of the data was tested by initial empirical work in a pilot study, and was implemented in the main research through two studies that looked at organisations before and after their engagement with *The AmbITion Approach*. Analysis of the evaluated data, via mixed methods through the framework of grounded theory, revealed to what extent the enterprises undertaking *The AmbITion Approach* adapted, to deal with disruptive digital technologies. Analysis also revealed what practical and theoretical knowledge was generated when organisations adapted. Finally, analysis revealed whether the concepts, methodologies and toolkits could be a framework for business transformation in a digital age, and what new contributions were made to knowledge and practice. As action research is an iterative process, it demanded a more unusual approach to a study. The diagram 1.2.2.1 below demonstrates the relationship between the phases of the research and the thesis content. The zigzag of lines between phases of activity undertaken through time, and the thesis

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[14] See http://getambition.com

developing, accurately depicts the reality of undertaking an action research study: with much developing, iterating, reviewing, and so on. The think-act-reflect method of action research was present throughout the planning, the empirical work, the analysis, and the writing.

Figure 1.2.2.1 Diagram to demonstrate the relationship between the phases of the research and the thesis content
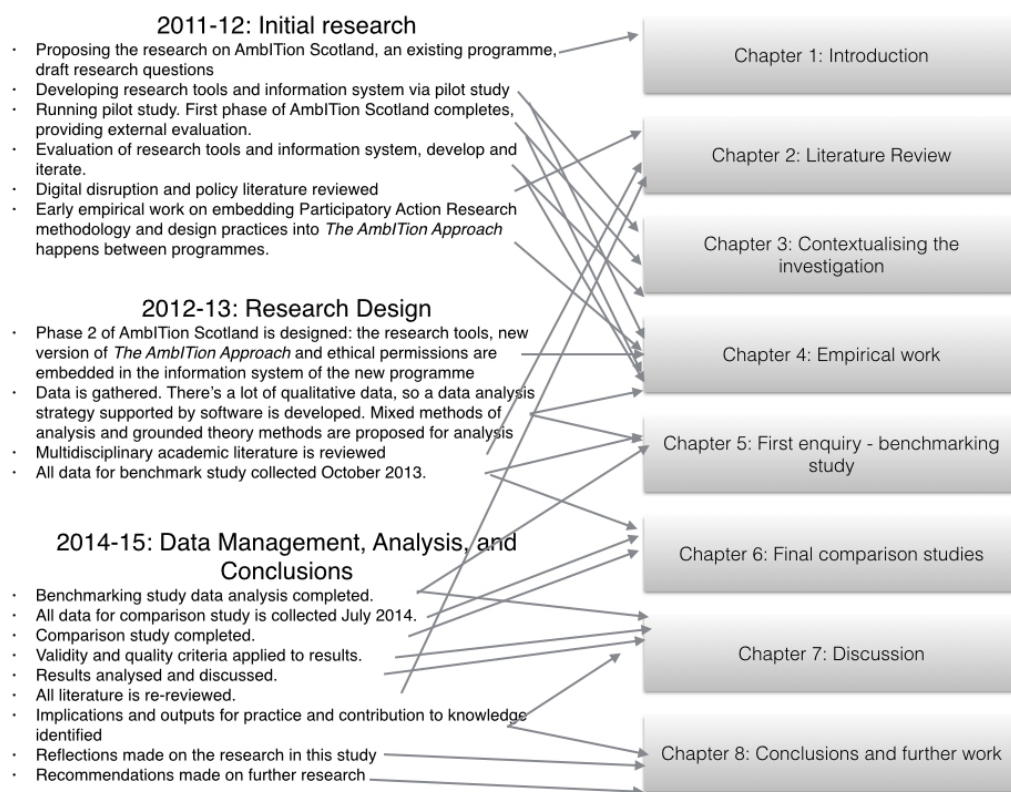
1.3 Thesis outline

Chapter 2 surveys the literature focussing on the history and theory of disruptive technologies, disruptive innovation, and creative destruction. It also considers the literature of open innovation, and surveys the literature that focuses on the evolutionary history and theory of the cultural and creative sector, and how this has influenced the emergence of today's creative industries/economy, the sector

chosen for this study. The chapter reviews recent shifts in government policy that have resulted in the inclusion of the IT, telecommunications, and software sectors being merged with the creative sector. Recent development policies and programmes are reviewed, as are recent calls from academics and practitioners across disciplines for better management and development techniques, frameworks, and toolkits to help organisations deal with digital disruption. The literature of information systems (IS) is considered, a discipline that considers the impacts of IT, and digital developments, in practical contexts. Finally, it offers summaries and conclusions, highlighting the areas in which new theoretical and practical research is called for, and the need for new organisational development approaches to help incumbent businesses become adaptable and resilient to the impact of disruptive technologies.

Chapter 3 describes the iterative development of an organisational development approach for creative organisations that face the need to adapt and change when confronted with digital disruption. The development of *The AmbITion Approach*'s concepts, methods, tools, and processes, prior to the empirical work of this study, is clarified – the practical and theoretical knowledge that has influenced its development is explored. The chapter also contextualises the specific changes that digital disruption demanded of the creative sector at the point when the empirical work of this investigation began, in 2012.

Chapter 4 describes the early empirical work undertaken. The integration of action research into *The AmbITion Approach* in 2012 was considered suitable for a sector used to practice-based learning and change, and a sector experiencing a constant need to change because of the demands disruptive technologies placed on businesses. Participatory action research (PAR) was the specific branch of action research methodologies applied to the approach. PAR is examined in depth: as an academic tradition, and as a practice in other fields. PAR's challenges, and issues of positionality and bias are addressed. PAR is considered specifically within the context of change and organisational development. Within this context of organisational change, the ontological and epistemological perspectives and validity and quality perspectives are explored. A suitable classification mechanism to prove and validate learning is proposed, creating a new framework to prove and validate change through action research. This is

identified as a potential contribution to knowledge, needing to be tested practically through being applied to the results of this study.

Data gathering is a key feature of PAR, delivering data and evidence back to the organisations as well as to the researcher. The tools through which data is gathered by PAR projects are practically oriented, using a variety of innovative methods for pragmatic impact. By checking the feasibility of the chosen participatory action research tools, and testing their validity as data gathering tools, via the pilot study, it was possible to ensure that the resulting research instruments for the main study were well-designed. The tools were iteratively improved following pilot study feedback. This feedback highlighted methodological and practical shortcomings. How the tools were implemented as the research instruments for the main study is explained, as is how the participant organisations were recruited. The research tools gathered a great deal of qualitative data from twenty one organisations undertaking *The AmbITion Approach* over a period of time spanning 2012 - 2014. The data gathering process, issues, and ethics are discussed in chapter 4, as are methods for the data analysis. Quantitative data was also collected alongside a large amount of qualitative data, and a mixed methods approach to data analysis was required. A grounded theory approach was applied to qualitative data. Quantitative and qualitative analysis was facilitated by Computer Assisted Qualitative Data Analysis Software (CAQDAS) - Snap survey and NVivo 10 software were used.

Chapter 5 analyses the initial data collected by the research instruments embedded in *The AmbITion Approach.* Twenty one organisations undertook journeys of change through participating with *The AmbITion Approach* during their participation on digital development programme AmbITion Scotland, between 2012-14. The process and results of the grounded analysis undertaken, specifically utilising thematic analysis on the initial dataset, is exposed. Themes relevant to the research questions emerged as results from analysing the content. A benchmark about why and how the organisations wanted to digitally develop and adapt their businesses emerged. At the beginning of their digital development change journeys, organisations expressed practical and theoretical knowledge needs as well as hopes, aspirations, worries, and issues. This benchmark study

established a baseline that enabled the final studies to establish comparison, and answer the research questions.

Chapter 6 presents the final studies of the longitudinal enquiry into the concepts, methodologies, and tools of *The AmbITion Approach*. The final studies reveal the extent of change, and adaptation, and digital development achieved by nineteen of the original twenty one creative businesses (two were still to complete change journeys by the time this study was undertaken). Evidence was sought from data gathered by the research instruments designed to interrogate organisations' progress and change achieved. Through studying the concepts, methodologies, and tools of *The AmbITion Approach,* the final studies analysed data to provide evidence for the research questions in this PhD enquiry. This sixth chapter introduces the different data and the dataset, and the analytic methods applied to the reflectionnaire[15] and case study data. It contains the results of a large comparison study, a mixed methods examination of the dataset. It also presents comparison and analysis against the benchmarks established in the baseline study (chapter 5). The chapter summarises evidence from the comparison study to inform the PhD enquiry's first research question - to what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies? It then presents two smaller studies focussed on the analysis of the case study data, and clarifies their evidence, to inform the PhD enquiry's second and third research questions. It analyses evidence on sharing practice.

Chapter 7 discusses the conclusions of the studies (chapters 5 and 6), and the early empirical work (chapter 4), to answer the enquiry's research questions. The validity of the results are considered, through the application of quality and validity criteria suitable to apply to a participatory action research study. The wider external impact and validity of the study's work on *The AmbITion Approach* is also discussed, considering how generalisable and transferable it is in practice and in the academy.

Chapter 8 makes conclusions on the study as a whole. It assesses the degree to which the study met its aims, the strengths and weaknesses of the research design,

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[15] A reflectionnaire is a questionnaire set-up to gather long-form, reflective content, see 4.2.4 and 4.3.4 below for further description.

and how alternative strategies could have altered the research. The chapter concludes what from this enquiry makes new contributions to practice, knowledge, and the practice of research. The chapter highlights the implications of these contributions for the fields of business strategy and management, creative and cultural industries studies, research and development management, action research, and information systems. Finally, it suggests areas for further work, research, and development.

1.4 Conclusion

This first chapter introduced the background and motivations for undertaking the enquiry. Cheaper mechanisms for delivering organisational and digital development for mainstream traditional businesses are required (1.1.3, above). New frameworks for business change and transformation are sought for the current landscape of continuous digital disruption (1.1.4, above). This doctoral research developed, tested, and studied the concepts, methodologies, and tools of a digital development framework called *The AmbITion Approach*. The research questions have been introduced:

> 1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?
>
> 2. Is new practical and theoretical knowledge generated by the enterprises that engage with *The AmbITion Approach*?
>
> 3. Could the concepts, methodologies and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age?

The chapter then introduced the research approach. The research questions were explored by empirical work. Action was taken to improve and develop *The AmbITion Approach*, its effectiveness was then investigated through studying twenty one Scottish creative organisations and practices that engaged with it. An information system collected the data from the creative enterprises via research tools embedded in the online mechanisms (following the development, testing and iteration of them in a pilot study). The data gathered by the tools was

qualitative and quantitative, to capture both the experience of organisations going through *The AmbITion Approach,* as well the facts about their change journeys. The strategy for the evaluation of the data implemented in the main research through two studies that looked at organisations before and after their engagement with *The AmbITion Approach*. Analysis of the evaluated data, via mixed methods through the framework of grounded theory, revealed to what extent the enterprises undertaking *The AmbITion Approach* adapted, to deal with disruptive digital technologies. Analysis also revealed what practical and theoretical knowledge was generated when organisations adapted. Finally, analysis revealed whether the concepts, methodologies and toolkits could be a framework for business transformation in a digital age.

The chapter has introduced what the thesis contributes to knowledge and practice. The work contributes to practice the concepts, methods, tools, and processes of *The AmbITion Approach*, which have been tested in the field to support creative enterprises as they face ongoing digital disruption, and validated as a new framework for business transformation in a digital age. The work contributes to the practice of research, as it adds to our understanding of the value of participatory action research, design thinking approaches and creative practices when used in online, networked information systems (see 8.1.2 and 8.1.3 below). The work contributes to knowledge a theoretical and conceptual framework with a specific set of constructs and criteria that define first, second, and third order change in creative enterprises, and a robust research and action framework for the analysis of the quality, validity and change achieved by action research based development programmes (see 8.2.2, below).

2. Disruptive technologies, disrupted landscapes

Throughout history, new and disrupting technologies have had an impact on the product, channels of distribution, and methods of consumption and engagement with culture. The creators of culture have adapted their businesses to reduce the impact. However, cycles of change have previously been slower. The ongoing rapid emergence of digital disruptive technologies has sped up change cycles. Since 2005, six technology companies leveraged consumer technologies in new ways to generate more that $1 trillion of market value. Apple, Amazon, Google, Facebook and Netflix have together upended some significant mature enterprises that used to be industry leaders. Nokia, AOL, Barnes and Noble, Borders, Blockbuster, Tower Records, HMV and Motorola lost on average more than 90% of their 2003 values (Frank et al., 2014, p. 10).

The creative sector faces a constantly changing context, characterised by the speed of the development and deployment of digital Information and Communications Technologies (ICTs) on a global scale. This disruptive technology has a huge impact on the whole value chain of the sector: creation and production, discovery and distribution, and consumption of cultural goods and services. Creative organisations therefore currently have two significant challenges:

- how to adapt to and cope with the changes as they impact more regularly; and
- a dramatically changing landscape of definition and policy for the creative sector (which in turn impacts the support available for businesses to undertake change, or operational, organisational, product, or business model development).

Section 2.1 surveys the literature, focussing on the history and theory of disruptive technologies, disruptive innovation, and creative destruction. It also considers the literature of open innovation.

Section 2.2 surveys the literature focussing on the evolutionary history and theory of the cultural and creative sector, and how this has influenced the emergence of today's creative industries/economy, the sector chosen for this study.

Section 2.3 reviews the recent shifts in government policy that have resulted in the inclusion of the IT, telecommunications, and software sectors being merged with the creative sectors. Recent sector development policies and programmes are reviewed, as are recent calls from academics and practitioners across disciplines for better management and development techniques, frameworks and toolkits to help organisations deal with digital disruption. The literature of information systems (IS) is considered, a discipline that considers the impacts of IT, and digital developments, in practical contexts.

Section 2.4 offers summaries and conclusions, highlighting the areas in which new theoretical and practical research is called for.

2.1 Disruptive technologies, creative destruction, and their impacts on the creative sector's landscape

This section surveys the literature focussing on the history and theory of disruptive technologies, disruptive innovation, and creative destruction. It also considers the literature of open innovation.

2.1.1 Disruptive technologies

The phrase 'disruptive technologies' was first coined by Clayton Christensen in his 1997 book, *The innovator's dilemma: when new technologies cause great firms to fail*. He showed that previously successful companies could lose their market share, and even their markets, by failing to predict new technologies' disruption or impact. Only by implementing sustaining or disruptive innovations, could companies avoid demise. Christensen proposed that "disruptive innovations" opened up new market opportunities for new services, products, or experiences. His initial theory suggested that technologies, or combinations of new technologies, could open up new market opportunities for new services, products, or experiences. What was offered currently by incumbents could be surpassed with seemingly superior or more mature technologies. (Christensen, 1997). In a 2nd edition of the original work, Christensen stated that "disruptive technologies are typically simpler, cheaper, and more reliable and convenient than established technologies" (Christensen, 2000), and distinguished at that point between disruptive and sustaining technologies. He also made one of his most influential recommendations: that incumbents (organisations with traditional business models) should set up a separate organisation for venturing into disruptive technology. Figure 2.1.1.1 below shows the escalating performance of disruptive technology, over time. The diagram shows the potential for disruptive technology to meet both low and high-end customer needs, in a short space of time. Although the performance of the sustaining technology exceeds the needs of both sets of customers, it becomes redundant as the disruptive technology more specifically meets the needs, more quickly, and often more cheaply.

Figure 2.1.1.1 Disruptive Technology's performance over time

Adapted from "The Innovator's Dilemma"
Clayton M. Christensen
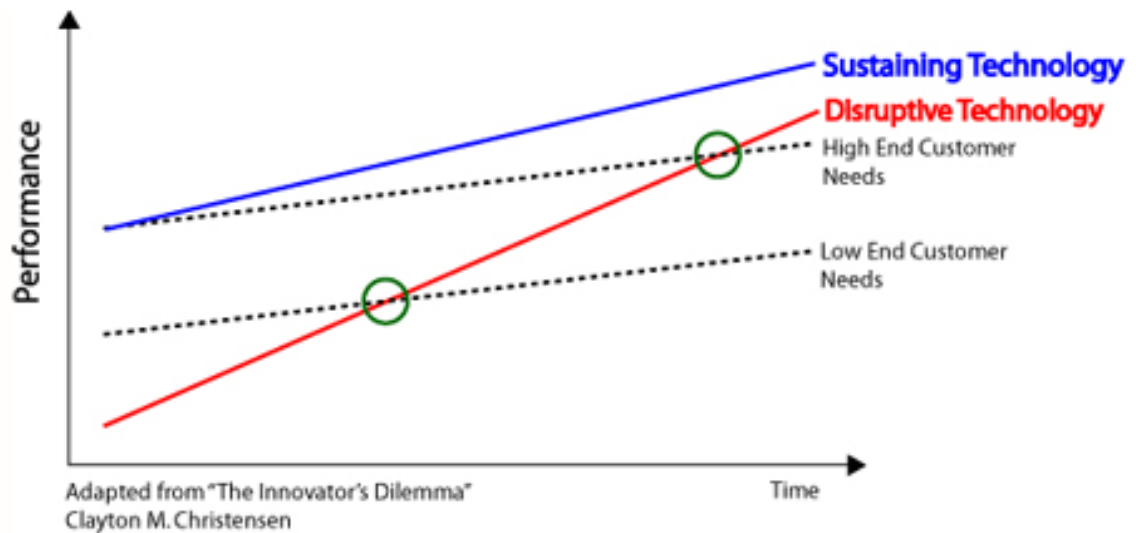
In 2003, Christensen revealed another key finding: that disruptive technologies eventually grew to dominate the market, claiming: "disruption is a process and not an event… it might take decades for forces to work their way through an industry but [they] are always at work" (Christensen and Raynor, 2003, p. 69). (Imagining this, on Figure 2.1.1.1 above, would see a steep decline against performance in the blue sustaining technology line as time progresses). By the early 2000s, the notion of 'disruptive innovation' had been adopted by businesses and academics alike, as an alternative term to 'disruptive technologies'. A number of authors describe disruptive technologies as disruptive innovations (Christensen, 1997), (Gilbert and Bower, 2002), (Moore, 1995). Other work continued, using the definition of disruptive technologies (Charitou and Markides, 2003), (Rafii and Kampas, 2002), (Rigby and Corbett, 2002) - these authors all progressed thinking, by suggesting practical strategies for responding to disruptive technologies, and calling for a broadening of the original definition. Rafii and Kampas defined disruptive innovation as "a technology, product or process that creeps up from below an existing business and threatens to displace it" (Rafii and Kampas, 2002). Hamel and Charitou and Markides argued that disruptive innovation should be

recognised as a more widespread impact, affecting the larger system of the business model of the organisation (Hamel, 2000), (Charitou and Markides, 2003).

Christensen himself later moved away from the term disruptive technologies, more regularly applying the term 'disruptive innovation' to a broad range of products and business models, as well as technologies. His work in 2003 lists discount department stores and motorcyles as disruptive innovations, alongside more obvious technology-influenced disruptions, such as photocopiers, online bookselling and digital photography (Christensen and Raynor, 2003). It was in 2003 when the previously constructed, but nuanced, perspectives were woven into an holistic definition. Offered by Thomond, Herzberg and Lettice, this is their definition of disruptive innovation:

> Disruptive Innovations' are successfully exploited processes, technologies, products, services or business models that allow organisations to significantly change conventional competitive rules, thus transforming the demands and needs of existing markets. New performance dimensions are introduced in direct conflict with traditional approaches… the disruption takes a foothold in an underserved customer segment (or with those who choose non-purchase as an alternative) and both the path and resource dependence of incumbent organisations result in their displacement as a major player, thus offering the disrupter significant new wealth opportunities (Thomond et al., 2003).

The holistic definition was meant to inform business strategy and management practice with the idea that if traditional players/incumbents were considering the opportunities and implications of disruptive innovation, it could become a competitive strategy for them. Erwin Daneels suggested a re-examination of the notion of 'disruptive technologies' in his 2004 survey of the literature on the subject, arguing that the term had come to be used too loosely, and had become separated from its theoretical basis (which is focussed on technologies). He claimed that Christensen's original coining of the term did not establish criteria to determine whether or not a given technology was considered a 'disruptive technology'. He also reflected that the term had become confusingly interchangeable with disruptive innovation, causing a lack of clarity. Daneels

recommended a reconsideration of the nature of disruptive technological change, and its consequences for firms and industries (Daneels, 2004). The recommendation was taken-up, by commentators and by academia. (Technology magazines such as Wired[16], and market intelligence firms like Gartner Inc. now identify a chart of the top ten disruptive technologies annually: 2013's chart, for example, placed mobility and cloud computing at the top[17]). Daneels' reasoning for specifying the nature of a disruptive technology was that through classifying how disruptive a technology was, indicated whether organisations should set up new organisations to explore and exploit them. Markides agreed with Daneels, and went even further, suggesting that not all disruptive innovations were the same: different types of innovations had different competitive effects; produced different kinds of markets; and created different challenges and implications for established businesses (or incumbents). He argued for finer categorisation, suggesting new definitions for business model innovations, and radical product innovations (Markides, 2005).

> To qualify as an innovation the new business model must enlarge the existing economic pie, either by attracting new customers into the market or encouraging customers to consume more… business model innovators do not discover new products or services; they simply redefine what an existing product or service is and how it is provided to the customer (Markides, 2005, p. 20).

> A second type of innovation that tends to be disruptive to the established competitors is radical innovation, which creates new-to-the-world products… Radical innovations are disruptive to consumers because they introduce products and value propositions that disturb prevailing consumer habits and behaviours in a major way. They are disruptive to producers because the markets they create undermine the competences and complementary assets on which existing competitors have built their success (Markides, 2005, p. 22).

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[16] http://www.wired.com

[17] http://www.crn.com/slide-shows/mobility/240044391/gartners-top-10-technology-trends-for-2013.htm , accessed 12.03.2013.

The definition of radical product innovations specifically refers to the creation of new markets, and what a business has to do create radical product innovation is completely different to what they might do to achieve business model innovation (Markides, 2005). Tushman and O'Reilly also suggested that organisations should develop "ambidextrous" organisational infrastructures to manage two different business models (Tushman and O'Reilly III, 1996). However, the danger here is that organisations then need to additionally innovate operational systems and management processes. Altogether, this amounts to a significant amount of change for any organisation, and it is easy to see further emerging risks from managing both business models badly. Markides' definition of business model innovation has obvious similarities to Christensen's original work on disruptive technologies (Christensen, 1997), but differs where it refers to how the incumbent business should respond. Rather than creating a new unit to exploit the new disruptive technology (as Christensen recommended), Markides' suggestion is to bring it into existing practice to innovate existing assets and exploit existing marketplaces. Markides' work encourages a more nuanced consideration of how disruptive technologies influence (and demand) both: business model innovation from the incumbents; and inspire radical new product innovations from the emerging competitors which create new markets and dilute the existing. It also raises the question of whether an existing company can adopt duel business strategies (traditional business-as-usual, *and* the business model innovation) in the same market.

One of the most significant challenges for creative sector businesses is when they are impacted by disruptive technologies. Embracing new business models demands time, money and a positive attitude to risk - the offset is that it can attract new customers and develop new markets. In his recent book on the future of capitalism, the CEO of Nesta states "Almost every aspect of human life has been shaped by the progressive mastery of technologies" (Mulgan, 2013). Often time poor and economic resource poor creative sector businesses struggle to take on the risk of engaging with a new business model, preferring continuity. If they do manage to create a new business model, managing the new and traditional models simultaneously can result in trade-offs when incompatibilities arise from

the two different ways of doing business; and this can result in severe stress on the business, as it loses focus and as the organisation's people and processes struggle to cope with the scale of change. If the traditional business fails completely because of the impact of disruptive technologies, it can be said that it faced 'creative destruction'. Dominant or traditional businesses failing, because of disruptive technologies, is creative destruction in action.

2.1.2 Creative Destruction

J. A. Schumpeter was the first economist to explore the role of new technologies on economic growth and development. He introduced the theory of the entrepreneur in 1911, with the publication of *Theorie der Wirtschaftcilhen Entwicklung* (*The theory of economic development*). This argued that all-important changes in the economy began with the entrepreneur, and then filtered throughout the economic system. The core of Schumpeter's work explored the relationship between innovation and the evolution of industries, and the process of economic transformation. New technology firms were described by him as "new firms which generally do not arise out of the old ones but start producing beside them" (Schumpeter, 1934, p. 66). Innovation causes market disruption, allowing new businesses to take the place of the large incumbent firms as they decline. Schumpeter's phenomenon of "creative destruction" sums up the process of:

> the new commodity, the new technology, the new source of supply, the new organisation… which strikes not at the margins of the profits and the outputs of existing firms but at their foundations and their very lives. (Schumpeter, 1942, p. 84)

Schumpeter's economic theories challenged the prevalent theories of Keynesianism (Keynes, 1936), and Walras's general equilibrium theory (Walras, 1874), both of which assumed that competition is almost exclusively price-based. He introduced the notion that "non-price characteristics of a product such as capabilities and performance - shift the basis of the competition from the ability to minimise cost to the ability to innovate" (Schumpeter, 1942, p. 84).

Later, in the literature, it was recognised that smaller and new firms were more likely to develop disruptive innovations, whilst incumbent businesses are more likely to develop incremental, or evolutionary, innovation (Abernathy and Utterback, 1988), (Bower and Christensen, 1995). Abernathy and Clark highlighted the breadth of the impact, considering how disruptive technologies can also disrupt markets and customers, manufacturing capabilities and competencies, and the industry value chain and infrastructure (Abernathy and Clark, 1985). Bower and Christensen developed the idea of 'sustaining technologies' that sustain the current capabilities and markets. Consensus amongst theoretically and empirically focussed academic authors, has built a rationale for why incumbent firms are unable, or unwilling, to adopt disruptive technologies. Incumbent firms' most loyal and profitable customers are heavily invested in current product offerings; the firms build products around their current knowledge base and capabilities; and they do not have the resources to invest in new technology as they are heavily committed to investing in the current technology. These reasons perversely lead the incumbent firm to believe that it cannot abandon its current customers, and therefore must continue investing in the current technology. The reasons also conversely reveal why incumbent firms feel comfortable with sustaining and evolutionary innovations, sometimes also known as "demand pull" innovation, because it identifies, through market research, the improvements desired by existing customers (Bower and Christensen, 1995), (Abernathy and Clark, 1985), (Abernathy and Utterback, 1988).

2.1.3 Creative destruction and traditional, incumbent business models

The creative destruction of traditional, incumbent businesses occurs when a new technology based business develops an idea or model, which is "technology push", rather than "demand pull" (which prevails in incumbent businesses). Technology push as a model is likely to develop disruptive technology, technology that creates a step change or leap in the current technological trajectory, because it is not based on market research - the market may not yet even exist. New technology-based businesses are also more flexible, and adaptable:

"The ability to adapt is governed by many of the same constraints that govern the ability to develop disruptive technologies… new firms and small firms are able to choose and change direction far more quickly than large firms, so they are able to lead the industry in adapting when circumstances change" (Spencer and Kirchoff, 2006, p. 154).

Schumpeter's creative destruction phenomenon is caused by new small technology businesses, as they oust incumbent businesses from leadership positions. New wealth is created in new structures, ensuring a greater movement of wealth within the economy. Disruptive technologies, and the businesses that invent them, are creative destruction in action, forcing industries to evolve.

Malerba contended that as industries evolve, because of the impact of disruptive innovations and the creative destruction thereafter, not only are the products and processes affected, but so also are the actors, links, institutions, and knowledge itself. In his review of the literature surrounding the evolution of industries, he noted that knowledge and learning regimes affected the way that innovative activities occurred in industries. Knowledge, and knowledge bases, changed during the evolution of an industry:

"In particular, the evolutionary literature has proposed that sectors and technologies differ greatly in terms of the knowledge base and learning processes related to innovation. In some sectors, science is the force driving knowledge growth, while in others, learning by doing and cumulativeness of advancements are the major forces" (Malerba, 2006, p. 12).

The emergence of social networks has caused major developments in the organisational and theoretical study of networks. The literature of this work in general does not need to be covered here, as structures of networks differ from industry to industry. However, there are a few theoretical and appreciative models that explore the dynamics of networks, and the dynamics of industries. Cowan, Jonard and Ozman suggested that structured networks generate higher knowledge growth, in industries in which tacit knowledge is relevant and technological

opportunities are high. Communication without structure performs better for industries in which technological opportunities are lower, and knowledge is codified (Cowan et al., 2004). This needs to be proved at a modelling level through empirical study, and this enquiry will seek to explore this. Malerba also called for more interdisciplinary research in the field of innovation and evolution of industries: integrating the areas of sociology, management and organisation, and technology, in addition to economics:

> Interdisciplinarity means eclecticism and openness to new contributions coming from different fields of research. Schumpeter might, I think, have approved, as he was after all as much a sociologist as he was an economist (Malerba, 2006, p. 19).

This study will take an interdisciplinary approach to look at the evolution of the creative industries.

2.1.4 Creative destruction and the creative sector

Foster and Kaplan conclude in *Creative destruction: why companies that are built to last underperform the market - and how to successfully transform them* that management philosophies and operational control processes based on the assumption of long term continuity are likely to cause the decline of companies. Those that embrace the forces of creative destruction and adapt to a state of discontinuity are more likely to succeed. They identify a state they call 'cultural lock-in', which manifests as three general fears:

- cannibalisation of an important product line,
- channel conflict with important customers, and
- earnings dilution.

Whilst these fears seem reasonable for established companies to exhibit, Foster and Kaplan point out that the market does not experience these fears, and moves on, whilst established companies freeze, becoming culturally locked-in to the idea of continuity. Companies in this state make poor decisions because of flawed forecasting, and the failure to change the status quo, or embrace discontinuity.

They recognise that businesses are designed to operate, rather than evolve, and call for companies to be redesigned on the assumption of discontinuity, designing in creative destruction (Foster and Kaplan, 2001). For any business seeking economic success but that is impacted by disruptive technologies, seeking adaptation is essential.

However, the focus of this study is a sector where there is a tension between the core product/service/experience: culture; and economics. If economic success does not necessarily drive the organisation (because bottom line success is measured on other factors as well as economic success), then the essential driver for creative destruction and discontinuation is missing. The arts, culture and heritage sector will not follow the standard pattern of creative destruction obliterating the status quo, following the impact of disruptive technologies. The status quo phase of analogue cultural artefacts, products, services, and experiences, has a significantly longer time duration. Mapping for example, art from the ice age, on the cycle of creative destruction (see Figure 2.1.4.1 below), could result in the status quo part of the cycle (where the artefacts and experiencing them still has cultural value) being 10,000+ years long - they are appreciated today. Mapping a digital development, like an arts CD ROM, or cultural podcast, sees the status quo being perhaps 10 years long. A play, or piece of music, sits at the status quo point for hundreds of years, but new live and digital productions of it are considered an innovation, and go through the cycle of creation and destruction much more rapidly as the production comes and goes. Digital technologies, content, and product though tend to have rapid journeys around the cycle, as new and emerging technologies and markets demand change.

Figure 2.1.4.1: Schumpeter's notion of Creative Destruction as a cycle

Schumpeter's Creative Destruction as a Cycle

Creation

Emerging possibilities

Status quo

Destruction
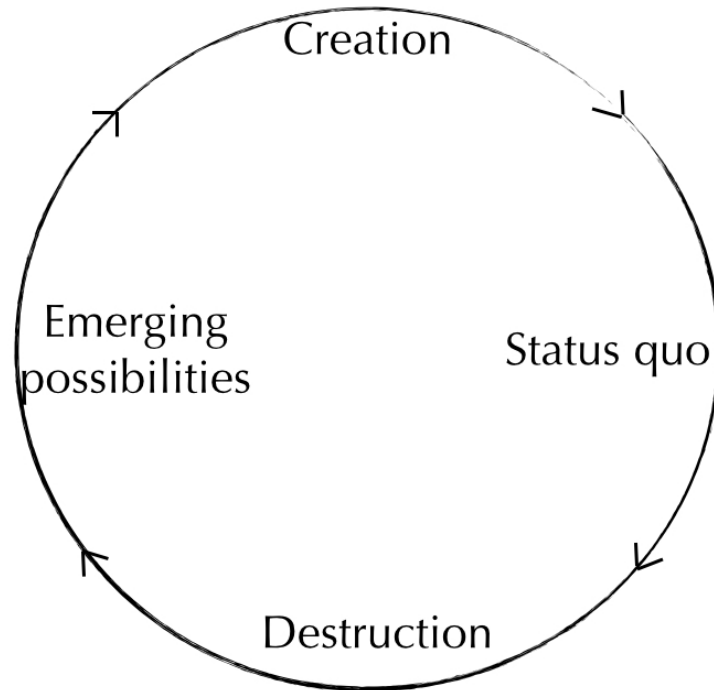
In order to avoid decline, traditional and incumbent businesses require the skills of adaptability, business model innovation, and the ambidextrous ability to be able to manage new business models, and the traditional models, simultaneously.

2.1.5 Institutions and Creative Destruction

Many creative industries organisations are described as institutions (for example, the BBC, ITV, Channel 4, film studios, music and book publishers, concert halls, museums, theatres, galleries, etc.) Hagel III and Seely Brown (2013) asserted that most institutions (traditional, incumbent businesses of larger scale) "are the product of the pursuit of scalable efficiency: self-contained entities that perform all critical economic activities within their own four walls" (Hagel III and Seely Brown, 2013, p. 4). They noted that efficiency has been a winning model for the last two centuries, as it relies on centralised governing systems, hierarchies, and times of stability and predictability. "Institutions are embedded in the cultures, technologies and infrastructures of their time, and the emergence of new social and technological infrastructures often catalyses fundamental institutional innovations" (Hagel III and Seely Brown, 2013, p. 5). Hagel III and Seely Brown

(2013) reflect on the past twenty years, which has seen massive disruption from digital technologies, considering how many sectors and enterprises have been significantly affected by the waves of digital disruption. They point out that institutions, however, seem to have remained resilient, arguing that they are built to last, to see fads and fashions come and go, to stand fast in the face of change and turbulence. This is true of institutions in the creative sector - theatres, museums, concert halls, film and TV studios - all still stand fast.

Considering the emerging wave of digital disruption at 2013, such as big data, wearable computing, and the Internet of Things, Hagel III and Seely Brown (2013) suggest that eventually, institutions and technologies always end up changing each other – new institutional form is created when technologies impact. New digital technologies have disrupted how organisations co-ordinate, work, and behave, as they break boundaries of scale and structure. This means new economies of scale, and new forms of co-ordination are possible. Stewart-Weeks and Tanner (2014) argue that the speed, complexity, and transparency of the digital era demands a reshaping of the institutional landscape. Institutions are sources of trusted and respected authority, and are currently an important tradition on which society is based. But digitisation is causing the relationship between institutions, and the communities they serve, to be renegotiated. In the digital world:

- requisite authority is derived from contribution not status.
- legitimacy is gained through access and transparency, earning trust, and collaboration.
- legibility (being read, understood) is justified via scrutiny of the crowd, and their mass participation.
- coherence and purpose has to be forged from the trust and legitimacy earnt now, rather than any historical reputation.

When new technologies emerge, the impact is broadly the same – power shifts, authority is tested, and the constitution of legitimacy is reformed. Legitimacy used to be conferred to an institution through a mix of expertise, positional authority, distance, and mystery. In the digital world, expertise and knowledge remain as

domains institutions can own, online. But distance and mystery now do not work as a currency that institutions can lever, to establish legitimacy. If an institution lays claim to authority and legitimacy online, then it can expect close scrutiny. Legitimacy is conferred differently in the digital world: through contribution, through value added by an institution authentically talking and sharing. Online, what an organisation does and how they act is more important than what they are, or say (Stewart-Weeks and Tanner, 2014). Digital technologies' impact on institutions is not just transactional or computational then. Digital technologies eat into the foundations of institutions, generating a need for deep behavioural change. Institutions are realising they no longer enjoy the unquestioned ownership or commanding heights of control and influence. Physical factors decline in importance, as digital technologies open up new options for organising human activity. Digital has made things more connected but more fragmented, it favours smaller, looser networks. To stay relevant in a digital era, institutions need to be agile, networked, increasingly visible to a growing community of interest and influence, and combine formal expertise with informal experiential knowledge. The traditional model of the institution as governor/expert/organiser/system is becoming dysfunctional and inefficient, as mutually reinforcing trends come into play:

1. a rapid proliferation of digital infrastructures (competitive advantage is knowledge and data, information is asymmetrical – customers know as much as the company)
2. a global shift to liberal economic policy (ease of moving talent, product and money globally is now easy to come by because of digitised marketplaces) (Stewart-Weeks and Tanner, 2014).

It is suggested that areas to study to advance the field of knowledge might be to examine whether institutions in networks have better adaptability capability, because knowledge is shared (Hagel III and Seely Brown, 2013). Economist Carlota Perez predicted the need for a new period of "institutional imagination" at the beginning of the 21st century (Perez, 2002, p. 167#252). Open innovation developed as a practice and academic field over the 21st century's first decade, with many forward-looking institutions, those flexing their institutional

imaginations, using it to adapt and change. Open innovation sits within the broader discipline of research and development management.

2.1.6 Institutions and open innovation

"Open innovation" was the term coined in 2003 by Professor Henry Chesbrough[18], describing what happens when companies source ideas for innovation from wide and open networks that span not just the company, but also many other organisations, and individuals. (Chesbrough, 2003). This was a major shift that he identified, in the way that technological research and development (R&D) was undertaken. Chesbrough revised the original definition three years later, to emphasise the intentionality of the knowledge flows into and out of the firm:

> Open Innovation is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively (Chesbrough, 2006, p. 1).

Enterprises practising open innovation, for example, buy patents and licenses from outside the company. Institutions with technologies or patents they are unsure how to exploit, control an outflow of technologies via licensing it out. Externally sourced capability might be extended by firms establishing partnerships with research institutes, connecting with users via crowdsourcing, or forming strategic alliances with other enterprises in different industries (Marjanovic et al., 2012). The business model works because knowledge and learning is now widely distributed to smart people, wherever they are. The great ideas, resources, and assets necessary for creating new products and markets can be done as smart work through the network. The logic goes: if the institution cannot handle the problem, make it a public problem, open-up for innovation. Each contribution is made on the basis that the author accepts as a condition of taking part that their work gets rolled up into another iteration. Open innovation means the innovation is still generated by individuals, and is therefore by definition isolated, but the

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[18] Professor Chesbrough is Director of the Garwood Centre for Corporate Innovation at Haas Business School, Berkeley. See http://corporateinnovation.berkeley.edu/ , last accessed 13.1.15.

organising framework is modular, bringing together the disparate knowledge. The framework:

- generates specialised knowledge
- aggregates it
- combines individual pieces of knowledge with others (Chesbrough, 2006).

Open innovation offered new terminology and a new managerial paradigm, but it built upon antecedents in innovation research, as described in many extensive literature reviews on open innovation. These are listed in a special edition of journal, *Research Policy* (West et al., 2014), and not summarised here. Open innovation has had an incredible impact on research - in a decade, from 2003-2013,

> the phrase "open innovation" appears in the title of 687 publications according to the Scopus database (418 publications in SSCI, SCI and other articles indexed by Web of Science) and 3150 according to Google Scholar (West et al., 2014, p. 806).

Open innovation has also impacted practice. Proctor & Gamble's Connect+Develop platform[19] is the best-known example of a successful open innovation framework. Operated online, and translated into Chinese, Spanish, Portuguese, and Japanese languages, it generates 4000 innovation submissions annually. West *et al*. (2014) report:

> …formations of clubs of firms with an interest in open innovation have formed around the world. These clubs provide an important place for industrial managers to share experience and practices and may have been important in helping to spurs the wider adoption of the term by other firms… the concept has been taken up by all levels of governments, whether local, regional, national or supra-national (West et al., 2014, p. 807).

An emerging theme for open innovation research is to seek "newer and better approaches to measuring open innovation" (West et al., 2014, p. 808). There is little research on considering the network, or ecosystems of open innovation as a

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[19] See http://pgconnectdevelop.com/, last accessed 19.12.2014.

unit of analysis, and Mitra (2013) specifically calls for this (Mitra and Sagagi, 2013). Further calls have been made to advance empirical research on open innovation practices in (SMEs). A small percentage (6%) of small and medium sized enterprises (SMEs) produce the majority of innovative new product development, R&D, export and employment, and wealth creation (Nesta, 2009).

This study will seek to analyse the successful open innovation practices shared in the open and online network of participant organisations, all of which are incumbent micro businesses, or SMEs in the creative industries. The literature of disruptive technologies and creative destruction, and of open innovation, has provided broad understanding of the likely impacts of new technologies on business models, operations, and management. Impacts on incumbent institutions of scale and history, and impacts on the sector as a whole, as new businesses create new products and markets.

The next sections examine the specific impacts of disruptive technologies on the creative sector, and how digitisation has impacted the definitions and make-up of the sector, as well as the policies that support it.

2.2 From 'The Culture Industry' to the 'Creative Economy'

This section surveys the literature focussing on the evolutionary history and theory of the cultural and creative sector, and how this has influenced the emergence of today's creative industries/economy, the sector focused on by this study.

The literature shows how changes in terminology and definition have occurred, because of both an age-old tension between culture and economics, and because of the impact of digital technologies. The section also shows how recent economic development policies in the UK, with their focus on supporting innovation, have created organisational development difficulties for incumbents. Particularly, policies around providing support solely for digital innovation are examined.

Finally, Information Systems (IS) literature is reviewed. IS is an academic field focussing on examining the impacts of Information Technologies (IT) and digital developments on enterprise.

2.2.1 From culture, to "Cultural Industry" to "Cultural Industries"

As a recent British Museum exhibition *Ice Age Art* shows, the creation of cultural artefacts, products, and experiences, has an ancient history.[20] The impact of the original disruptive technology on cultural creation was Gutenberg's printing press in the 1400s, which increased the speed at which cultural commodities could be reproduced and sold. Mass reproduction meant lower cost initial investment in materials, skills, and shorter times for that initial investment to be recouped: achieved by volume sales of the copies. With each new technological improvement of the printing press, the time and effort involved in reproduction fell. The cheaper the copy, the more the potential profit for the publisher. The impact of the disruptive technology of the printing press was the beginning of the print revolution, which resulted in the production and reproduction of cultural commodities accelerating to the point where they were considered industrialised (Briggs and Burke, 2005). The 'industrialisation' of culture is often associated with the modern technological developments that allowed reproducibility, such as the new industries of mass reproduction and distribution, which emerged over the 19th century. These were photography, film, sound recording, mass circulation daily newspapers, and popular prints (Miege, 1979). In the early 20th century, broadcasting technologies introduced mass radio and television broadcasting. The digitalisation of these reproduction technologies over the late 20th and early 21st centuries, which expanded the production and reproduction of cultural commodities, further accelerated the cycle of disruptive technologies (Miege, 1987), (Miege, 1989).

The emergence of the term "culture industry' was in 1947, when Theodore Adorno and Max Horkheimer coined the term in their essay *The culture industry:*

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[20] http://www.britishmuseum.org/IceAgeArt - a 2013 exhibition exploring art made 40,000 years ago.

enlightenment as mass deception (Adorno and Horkheimer, 1979). Adorno's subsequent writings on the culture industry coincided with the post-war creation of national cultural ministries, and national arts foundations, and the beginning of nationalised cultural policy. Adorno's ideas on the culture industry were about the commodification of culture; but were also about the organisation of cultural commodity production on a mass industrial scale (Adorno, 1991). This idea was built on by Miege, to develop a systematic taxonomy for models of realising exchange value. He developed three kinds of cultural commodities:

> 1. physical objects carrying cultural content were sold as commodities to individuals – books, records, videos etc.

> 2. TV and radio broadcasting were available free to consumers, were unrestricted, and made money out of advertising and sponsorship. The State made big interventions to take broadcasting out of private ownership. There were fewer paid-for subscription services paid then, and in many nations broadcasting was provided as a public service financed by taxation. Some mix of public service and commercial stations was in place in most states. Newspapers and magazines occupied an intermediary position, where individual copies were paid for, but advertising brought in the bulk of the revenue.

> 3. Forms associated with public performance – music, theatre, and especially cinema - which depended on restricted viewing and charging an admission fee. (Miege, 1987), (Miege, 1979), (Miege, 1989).

As such, the concept of the culture industry gave way to that of the cultural industries, where each sub-sector had different ways of realising exchange value. They had different ways of managing demand and creative labour, and different levels of capital investment and corporate control. Hesmondshalgh (2007) identified that this conceptual shift facilitated the recognition of:

- the connections between technologies of production and distribution;

- changing business models;

- the emergent connections between symbolic and informational goods; and

- between culture and communications systems (Hesmondhalgh, 2007).

2.2.2 The "creative industries" emerge

Since 1997, within the UK the cultural industries have sat inside the government's wider definition of the 'creative industries', a term coined by the Department for Culture Media and Sport (DCMS), then under New Labour minister, Chris Smith (Smith, 1988). A new status was given to cultural policy and the cultural industries. Academic writers noted the political motive. New Labour built on the oppositional popular culture that stood against Thatcherism: articulated in the form of the emergent discourse around cultural industries, creativity, and socially responsible entrepreneurialism. The cultural industries, previously ignored in government policy or conflated with 'the Arts', were to become central to a new contemporary image for Britain. New Labour's adoption of "Cool Britannia" was a high-profile exemplar of the creativity and innovation that was to be supported, to supposedly remake Britain for the 21st century (Redhead, 2004), (O'Connor, 2010). The DCMS defined creative industries as being tangible products or intangible services, with the market objective of distributing and disseminating creative content, for economic and cultural value. The creative industries were defined as the cycle of creation, production, and distribution of marketable products or services that people created through using their intellect and imaginations. Those "which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (Department for Culture Media & Sport, 1998, revised 2001). Practically, creative industries were defined as a cluster of creative outputs and services, which had a wide breadth of various sub-sectors related to cultural heritage, fine arts, architecture, crafts, performing arts, museums and archives, media and broadcast, film, publishing - the classic cultural industries sector. To this were added functional services such as design, fashion, and advertising; and, more controversially, 'software' and computer game design to these. The shift in definition brought into play a whole range of correspondences and tensions around the issues of culture, technology, and economics (Hesmondhalgh, 2007).

Economically, the creative industries were positioned in a 'new economy', which was driven by digital technologies, and closely linked to the knowledge economy. It was the exploitation of intellectual property (IP) rights that was to position the creative industries at the forefront of economic competitiveness. Garnham (2005) pointed out that it was the impact of software employment (during the dot-com boom - the speculative investment bubble that formed around Internet companies between 1995 and 2000), that made the statistics look especially impressive to the Treasury. Garnham pointed to both the over-inflated claims for this new economy, and the dangers of it. He was building on the central insights of the political economy school, and he proposed that the new concern with IP rights was an attempt to overcome one of the key restrictions on profitability in the cultural industries. The restriction was the tendency of cultural goods to become public goods - which of course previously precluded them from being tallied into the bottom line of UK economics (Garnham, 2005). The inclusion of software, and video games in the DCMS creative industries definition was very important to its economic positioning of the sector as the industry of the future.

By 2005, a globalised and interconnected world was increasingly dominated by rich, multi-media images, and digital sounds. The creative industries, which created the rich media mix, were already leading employment, trade and innovation in many countries. According to UNCTAD's global database on world trade of creative industries, between 2000-2005, international trade of creative goods and services increased at an unprecedented average annual rate of 8.7%, reaching US$ 424.4 billion in 2005 (United Nations Conference on Trade & Development, 2012). The 'creative industries' definition birthed in the UK, is now commonly globally recognised, according to the United Nations Conference on Trade & Development (UNCTAD) *Creative Economy Report*, although exact definitions differ country to country, depending on governments' own classifications (United Nations Conference on Trade and Development, 2008). Only ten years previously, the DCMS was undertaking initial efforts to map the size of the UK creative industries as it emerged as a sector: there has undoubtedly been dynamic growth and development.

2.2.3 Creative industries and the impact of digitalisation

Since 1995, the speed and breadth of digitalisation, and technological development, has presented all private and public sector businesses, enterprises, and organisations with an age of change. Moore's law[21] correctly continues to define the pace of technology development, with transistor/chip/semiconductor power doubling every couple of years. This drives down the cost of the technology, making chip-driven devices (computers, mobile phones, consumer electronics, etc.) accessible to an increasing number of people. New business models emerged within the creative industries when advances in information and communication technologies (ICTs), especially the development of social media, altered the patterns of cultural consumption worldwide. This changed the way creative products were created, produced, reproduced, distributed and commercialised at national and international levels. Technology:

- as a tool began supporting the creative process (for example, sophisticated video editing tools that previously needed expensive bespoke suites were now available as free software running on the cheapest models of portable computers and high end tablet devices).
- provided the distribution routes to, and enhances the consumption environments of, audiences and consumers through convergence.
- underpinned the power of social networks that have brought a new dynamic to the creative process locally and globally, remixing the traditional with contemporary cultural and creative expressions.
- was integral to product/output - computer games, and increasingly media, broadcast, publishing, and music (Technology Strategy Board, 2009).

The European Commission's Vice President summarised the challenges of technology's impacts, saying the creative industries were:

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[21] Gordon Moore, Intel Co-founder, made his prediction in 1970, which is now popularly known as Moore's Law. http://www.intel.com/content/www/us/en/silicon-innovations/moores-law-technology.html

faced with a rapidly changing environment characterized in particular by new technologies (digital shift) and globalization, which bring with them new challenges and opportunities. Moreover, businesses in this sector, and especially SMEs, too often face obstacles to fulfilling their full potential. The current economic crisis is also adversely impacting on these industries, making it even more difficult for them to access the resources they need to finance their activities and adapt to the new environment.[22] (European Commission, 2010, p. 10)

2.2.4 Creative industries and the impact of the global economic crisis of 2008

Another significant impact contributing to an age of rapid change for the creative industries, was the financial turmoil that erupted with the impact of the sub-prime crisis during the second half of 2008. The financial crisis impacted economies worldwide, causing a widespread squeeze in liquidity and credit, and provoked an ongoing recession in the developed world. Whilst traditional manufacturing contracted in the advanced nations, the knowledge and people-based creative industries sector proved more resilient. Despite a 12% decline in world trade, by 2008, growth in the global creative industries increased at an average annual rate of 14%, reaching $59bn (United Nations Conference on Trade and Development, 2010). In the UK, the creative industries contributed 2.9% GVA, 10.6% of the UK's total exports of services (publishing, radio, and TV being the largest exports), and employed over 1.5 million people in c.108,000 businesses (Department for Culture Media and Sport, 2011). The consumer-facing creative industries sub-sectors fared well through recession. West End theatre box office receipts were at a record high in 2008, despite the wider slowdown in consumer spending; and UK consumers spent an all-time high of £1.9 billion on video games in 2008. Business-facing creative industries sub-sectors fared worse. The UN's *Creative Economy Report* states in 2010, that "the firmness of the market for creative products is a sign that many people in the world are eager for culture, social

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[22] European Commission's Cultural and Creative Industries policy development statement by the Vice President, 11th February 2012 by video and web. See http://ec.europa.eu/culture/our-policy-development/cultural-and-creative-industries_en.htm last accessed 12.02.13.

events, entertainment and leisure" (United Nations Conference on Trade and Development, 2010). However, in the advertising sector, the *IPA's Bellweather Survey* found that in 2008 Q4 annual marketing budgets were revised down by the greatest extent ever since the survey began nine years previously. Architecture practices suffered from the slowdown in the housing and commercial property markets (Bakhshi and Pugh, 2009). This age of significant change for the creative industries was exacerbated by the global economic crisis of 2008, with price erosion, and declining advertising budgets affecting all sectors, especially the media and publishing sub-sectors of the creative industries. The difficulties of the era for the creative industries, were also exacerbated by a constant redefining of the industry/sector itself, which in turn impacted the common or popular understanding of the term.

2.2.5 2008 legacy: a confusion of definitions and a blurred framework for business support

The creative industries came of age politically as a key industrial sector when their importance to the UK's digital economy was highlighted in Lord Carter's 2008 *Digital Britain* Report, commissioned by BERR and DCMS. The report aimed to envision and pragmatically set out how Britain could sustain its position as a global digital society and economy. The report had seven aims outlining what the UK government should do on certain issues. Civic interest topics such as digital participation levels, digital communications, digital physical infrastructure, and industrial safety frameworks were the focus of the aims, but the report also included an aim specifically focussed on the creative industries. The report would achieve:

> A statement of ambition for the future growth of our creative industries, proposals for a legal and regulatory framework for intellectual property in a digital world, proposals on skills and a recognition of the need for investment support and innovation (Carter, 2009).

This stated aim embedded the creative industries at the heart of the notion of a successful "Digital Britain". The creative industries was the only industrial

sector mentioned in the aims, and was therefore given an implied elevated status (the technology and IT sectors were not mentioned in the aims). Not all arms-length bodies agreed with this, including the Technology Strategy Board (TSB), the UK government's advisory arm of Department for Business Innovation and Skills. The TSB's stated role on its website was, at that point in time, to "stimulate technology-enabled innovation in the areas which offer the greatest scope for boosting UK growth and productivity".[23] The TSB's stated focus on innovation meant that it did not recommend that the government should provide support for the digital development of traditional, established business models, that much of the sector embodied. Since coining the term *creative industries* in 1995, the Department for Culture Media and Sport has recently been redefining the sector's segmentation, in light of the impacts upon it of technology. The TSB advanced the definitions by proposing a matrix that segments the sectors on the basis of physical vs. digital product, and manual vs. technology aided creative process. It added in the social media sector. Figure 2.2.5.1 below summarises the recommendation of TSB:

Figure 2.2.5.1: Segmentation Strategy for the Creative sector by the Technology Strategy Board (Creative Industries Strategy, 2009-12)

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[23] The Technology Strategy Board was renamed Innovate UK in 2014 - see http://www.innovateuk.org/.
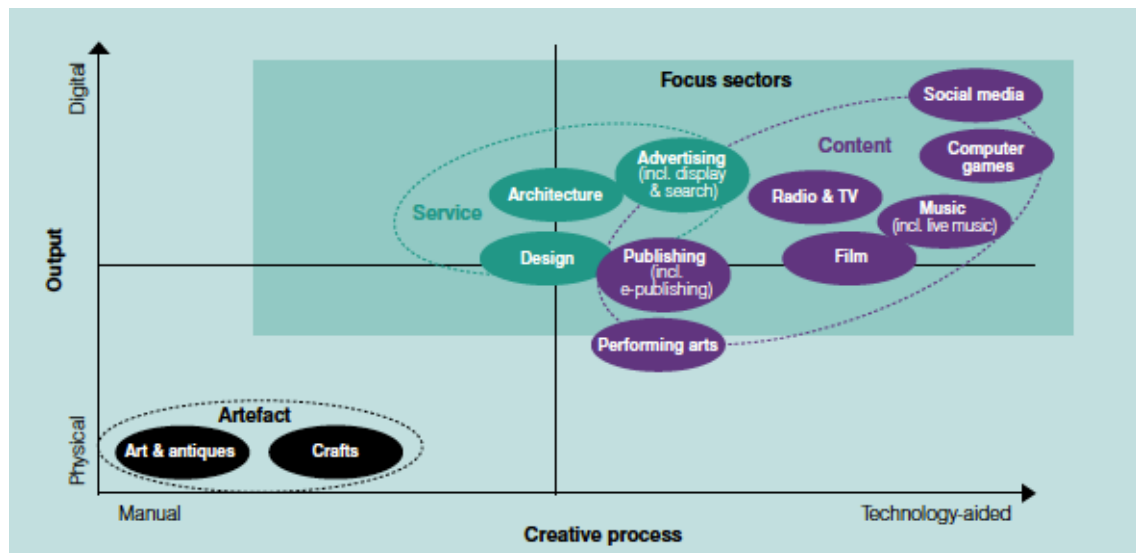
In an effort to find commonalities amongst the range of creative industries sub-sectors, the TSB clustered sub-sectors into three groups: services, content and artefacts. The traditional cultural industries were split between the new groups. The Technology Strategy Board defended its reasoning for this:

> technological development has blurred the boundaries between different creative industry sub-sectors. Businesses and markets, which traditionally had little in common, now find themselves facing very similar challenges and need co-ordinated, cross-sector solution… the economic value increases with degree of digital output and involvement of technology in the business process… the more engaged with digital technology an industry is, the more likely it needs to transform its business model. (Technology Strategy Board, 2009)

The TSB's definition of the art and antiques, crafts, and performing arts is that their creative process is manual rather than technology aided, as well as more physical, as opposed to digital, in output. This neglects to consider the new markets and audiences these sub sectors have engaged - through digital developments. For instance, these are well-known examples:

- Google Art Project - the high definition online discovery engine, allowing global, extreme close-up access to the world's best fine art and antiquities[24].

- Etsy.com - a global marketplace for professional and amateur craft objects, mediated through an e-bay style auction website[25].

- Simulcasting - the performing arts have successfully broadcast live by satellite content to digital cinemas around the globe (Metropolitan Opera, Glyndbourne, and National Theatre London are frequently on the bill in UK cinemas).[26]

The TSB segmentation separated the sectors that have a digital product and/or technology aided creative process, from those that have a physical output and a manual creative process. The TSB since described the creative industries as "leading in the digital marketplace" in a January 2012 press release, showing they understand the sector in terms of content, and services, and artefacts - solely as outputs that can be traded for economic impact (Technology Strategy Board, 2012). The DCMS's 2013 consultation on the definition of classification of the creative industries began to formalise this swerve towards digital aided processes. Arts and Antiquities disappeared completely as a subsector, despite their obviously artistic and creative physical output and (social, aesthetic, spiritual, economic) value as cultural commodity (Department for Culture Media & Sport, 2013).

2.2.6 Towards a "Creative Economy"

That the creative industries had been such a major player in the UK's digital economy resulted in raised sector confidence, but also created confusion, as the terms "creative economy" and "digital economy" were also used to describe the creative industries. There was confusion about which sectors the definitions covered, and therefore which government agencies were

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[24] http://www.googleartproject.com/en-gb/ , accessed 12th February 2013.

[25] http://www.etsy.com

[26] http://www.eventcinemaassociation.org/

responsible for supporting them. Potts, Cunningham, Hartley and Ormerod suggested in 2008 that the creative industries was not an 'industry' at all, but part of the innovation system of the economy. This model of the creative industries wanted to connect Schumpeterian evolutionary economics, the revolutionary rhetoric of web 2.0, and a particular 'active audience' strand of cultural studies (Potts et al., 2008). In reviewing these ideas, O' Connor surmised that the paper:

> tried to answer one of the problems posed to neo-classical economics by the creative industries. Markets are ideally supposed to work on perfect information, assigning price to known use-values. But the creative industries deal in novelty, unknown value, so how can markets assign price? They do so through the value placed on them by others, through interaction across social networks (O'Connor, 2010, p. 65).

Creative industries were also considered as core to the economic activities of the new "cognitive cultural capitalism" (Scott, 2008). A growing literature by cultural economists Bakhshi and Throsby highlighted the innovation capacity of the creative industries (Bakhshi and Throsby, 2010), (Bakhshi and Throsby, 2012). By 2010, the UN had begun using the term *creative economy* instead of creative industries. For them, the creative economy referred to the global creative industries, but highlighted its multidisciplinary nature — its economic, social, cultural, technological, and environmental linkages and impacts. Edna dos Santos-Duisenberg, Chief of the Creative Economy Programme, UNCTAD stated:

> In our interdependent contemporary world, the time has come to look beyond economics. In searching for remedy for our current difficulties and move ahead, the world needs to adapt and bring culture and technology into the mainstream of economic thinking. Development strategies have to be updated to cope with far-reaching cultural, economic, social and technological shifts which are rapidly changing our lifestyle. It is time to look for a more holistic approach which takes into account the specificities of countries' cultural differences, identities and real needs (Dos Santos-Duisenberg, 2008).

The term 'creative economy' had been explored since 2007 as a potentially better definition by commentators, academics and policy makers. The creative economy definition was recognised as potentially a more helpful term, because it acknowledged the whole of the creative ecosystem:

- direct creative outputs;
- *plus* creative inputs into other industries such as manufacturing and services from creative professionals.

Australian academic John Hartley, an early influencer of the term, reflected:

> Confining the creative industries to outputs means that the high added value gained from creative inputs into other products and services is not counted… when the contribution of design professionals across the board is aggregated, the design sector in that state is four times bigger than traditional statistics show. The same is true of music, performance, writing, and audio-visual production, the more so as each of these creative forms develops digital and online scale. Creativity already contributes more to economic wellbeing than most governments or observers care to count (Hartley, 2007).

A creative economy would therefore be recognised as a much more complex adaptive system: cross-cutting the economic landscape, rather than sitting as a silo within it. It contained the core creative outputs from the industries. Additionally, it contained the creative inputs embedded into other businesses, culture and society, through creatives working in other sectors.

Nesta created the "Creative Trident" basis for the formalisation of a process of defining a creative economy, based on Hartley's work, and developed by the Australian Research Council's Centre of Excellence for Creative Industries and Innovation). The "Creative Trident" basis used data from the Annual Population Survey and looked at:

1. Jobs in the Creative Industries not classified as creative
2. Creative Jobs in the Creative Industries
3. Creative Jobs outside the Creative Industries ("embedded" jobs)
Creative Economy = 1+2+3

Creative Industries = 1+2 (Higgs et al., 2008)

It was applied to the UK's creative industries data in 2008, but with limited success. The work discovered that 35% of the creative workforce was embedded in the wider economy, with higher than average and growing salaries. The difficulty in applying the model in UK though, was the lack of up-to-date data: business registers do not allow for sufficient granularisation of creative sectors nor track sole traders and freelancers, and population census data is only collected every 10 years. In 2008, Nesta worked with 2001 data. As a result, Nesta was only able to make one extremely clear conclusion around a UK creative economy - its impact on innovation:

> Our findings regarding the embedded nature of creative activities across the UK economy raise the possibility that the creative sector is significantly more involved in the wider innovation system than has been recognised to date (Higgs et al., 2008).

The argument here is that the economic importance of the creative industries does not lie only in their contribution as specific industries to wealth creation and employment, but in their crucial role in the wider innovation system. Potts et al (2008) concluded that the model of increasing growth in specific subsectors should not be followed, but a new kind of innovation policy should be implemented for the whole sector (Potts et al., 2008). This message landed well. The creative industries sought equanimity with science and technology, in terms of being part of the UK's innovation policy, and in Australia, a Creative Industries Innovation Centre was established in 2009 (Eltham, 2009). The emergence of the term "creative economy" to describe this shift, centred the creative industries at the heart of an economy-wide innovation system (O'Connor, 2009). Potts *et al* (2008) concluded "we no longer have an industry as such but a 'complex open system' operating at the edge of innovation, organised around 'agent cognition and learning', 'social networks' and 'market-based enterprise'" (Potts et al., 2008, p. 169). Not everyone agreed with the redefinition. Professor Philip Schlesinger, (Director of the Centre for Cultural Policy Research, University of Glasgow) in his 2009 essay *New Cartography* commented:

> What's so striking about our thinking in recent years is the instability of the terms we use. We've moved from creative industries to creative economy but without this affording clear policy purchase across the board. Alongside this there's a tendency to subordinate creativity to innovation – to economise the breadth and depth of the idea (Schlesinger, 2009).

Schlesinger also criticised the low priority given to cultural policy making at DCMS in his description of the formulation of 2008 strategy (Schlesinger, 2009). Holden before him bemoaned the poor understanding amongst policy makers of the nature of cultural production in a digital age (Holden, 2007).

The Australian theorists (Potts, Cunningham, Throsby, Cutler, *et al*) at the Centre for Creative Industries and Innovation at the Queensland University of Technology reached a more radicalised line on what the specific intervention should be for the arts. They proposed that the "subsidised arts" should no longer be included in the creative industries, because they could not properly engage with, or establish novelty and value, in new digital markets. O'Connor warned against this, asserting that there was a difficulty with separating the creative industries from cultural policy. Creative production legitimately has intrinsic cultural and social value, and the creative industries are better-off including the subsidised arts/traditional cultural sector. He warned "it is tempting to lose the cultural baggage in order to get a seat at the table of the powerful. The creative-industries-as-innovation provides the point of perfect leverage, but is in danger of losing a constituency" (O'Connor, 2009, p. 398). Eltham also reported a continuing disconnect between cultural and innovation policies in Australia (Eltham, 2009).

2.3 Development Policies for a Creative Economy

2.3.1 The Creative Economy swallows the Creative Industries

In April 2013, the DCMS opened a consultation around the updating of creative industries classifications. The review was based on the new concept

of "creative intensity" (the number of people executing creative jobs or undertaking creative activity as the main part of their work in each industry) - with 30% being the lowest creative intensity level for inclusion in the creative industries classification. It proposed reducing classifications from 13 to 7, with the removal of Arts and Antiquities, and Crafts, as separate classifications. It also proposed the expansion of the software creation sub-sector, to include IT and computer services:

> IT software and computer services form a readily identifiable industry group within the proposed classification and their contribution can be identified separately. The introduction of the new occupational classification (SOC2010) has enabled better identification of IT occupations which are creative (eg web design and programmers) from those which are not. The "creative intensity" approach leads to the introduction of a number of software and IT industries since the "digital creative" parts of these sectors can now be better identified. (Department for Culture Media & Sport, 2013, p. 13).

The diagram below, Figure 2.3.1.1, shows a modified interpretation of DCMS's 2013 proposed changes to the creative industries sector definition through annotations on the original 2009 diagram (above, Figure 2.2.5.1).

Figure 2.3.1.1 2013 DCMS repositioning of the TSB's 2009 definition of creative industries (my annotations drawn on)

2013 amendment proposed by DCMS to TSB's 2009 creative industries definition/focus
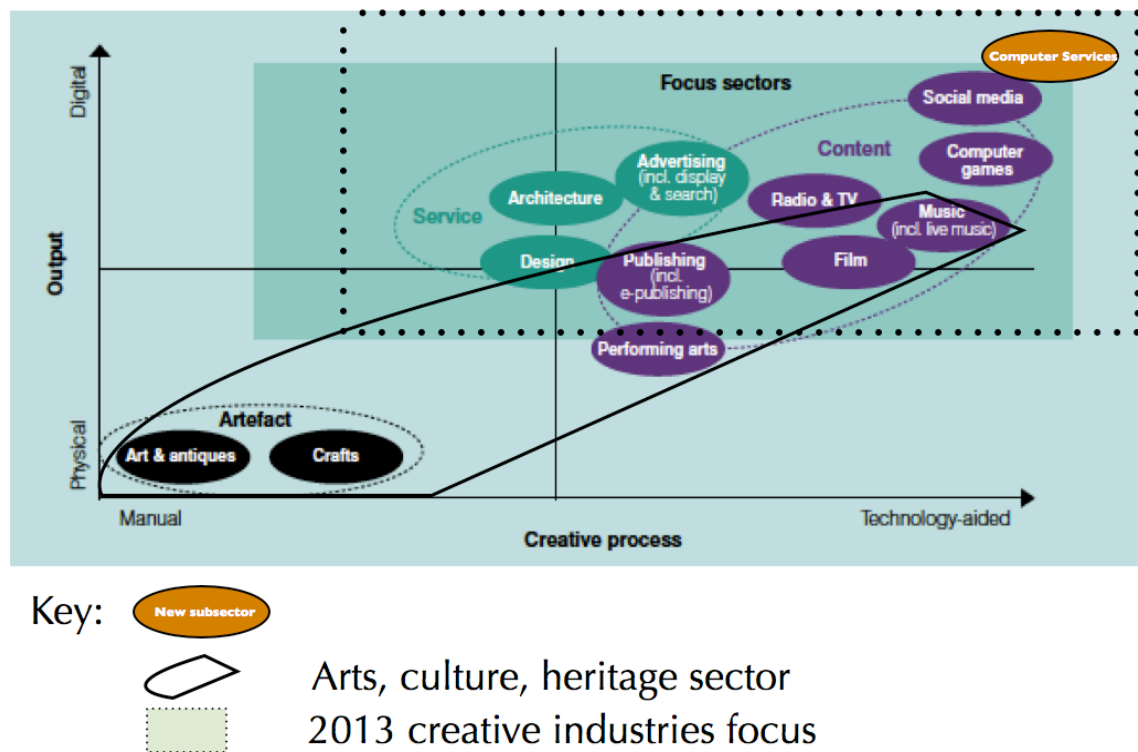
The diagram shows a key of my annotations. The 2013 focus of the creative industries, suggested by my dotted line, only covers about half of the traditional arts, cultural, and heritage sector - the more easily digitisable sub-sectors. A continuing focus on digital creative industries, and introduction of new computing-based sub-sectors, would again shift the focus sectors square up, and right. Further away from the arts, culture, and heritage sector, leaving them on the edge of the sector, as indicated by the black highlighted border around them. By January 2014, this scenario was policy. The economic estimates report of the creative economy sector, published by DCMS in January 2014, announced it was redefining the sector, using:

> a new methodology for determining which occupation and industry codes are classified as "creative"… The methodology comprises three steps. First, a set of occupations are identified as creative. Second, creative intensity is calculated for all industries in the economy. Third, all industries with a creative intensity above a certain "threshold" are

classified as Creative Industries (Department for Culture Media & Sport, 2014, p. 4)

The size, and economic impact of the creative economy increased hugely, with the introduction into it of the IT, telecoms, computer, and software industries. Figure 2.3.1.2, below, shows the GVA data relating to the different sub-sectors, as sourced from the provisional 2012 Annual Business Survey. At three times the size of the publishing, advertising and marketing, and film and TV subsectors (which themselves are at least twice as large as the cultural sub-sectors), the IT, software and computer services sub-sector is a significant addition.

Figure 2.3.1.2: GVA (bns) of the creative economy
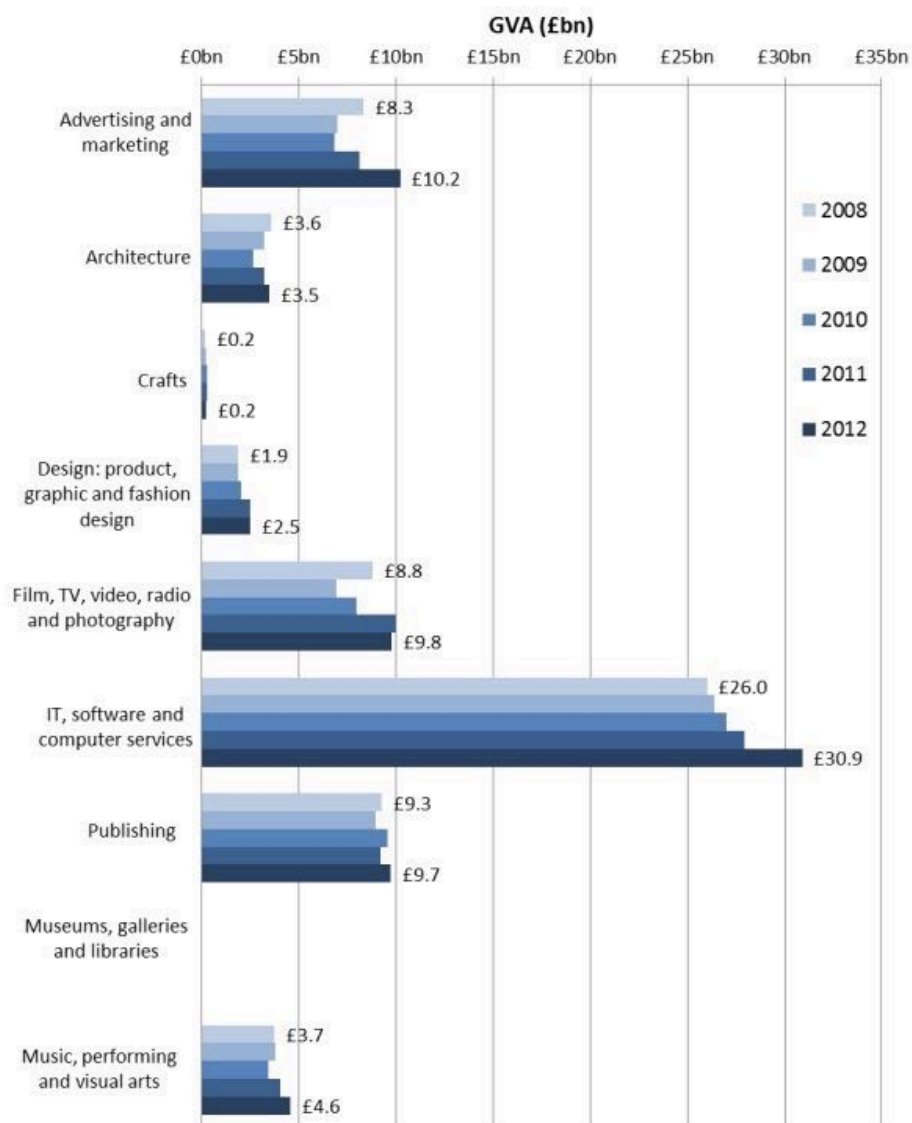
Notes:
1. Source – ONS Annual Business Survey (2012)
2. Current prices (i.e. not accounting for inflation)
3. The ABS does not fully account for GVA of Museums, galleries and libraries (see Annex D) these data have not ben shown in this figure.

The Creative Trident basis was again applied to the Creative Economy 2014 statistics, this time more successfully than in 2008 (see 2.2.6, above), following both significant work by the Office for National Statistics to improve the quality of the data, and a new census being published in 2011. Figure 2.3.1.3 below shows the scale of the creative economy workforce visualised via the creative trident basis:

Figure 2.3.1.3: Creative economy employment in 2012 visualised via the creative trident basis

796,000 jobs   866,000 jobs

1   2   3

888,000 jobs

Source: ONS APS 2012
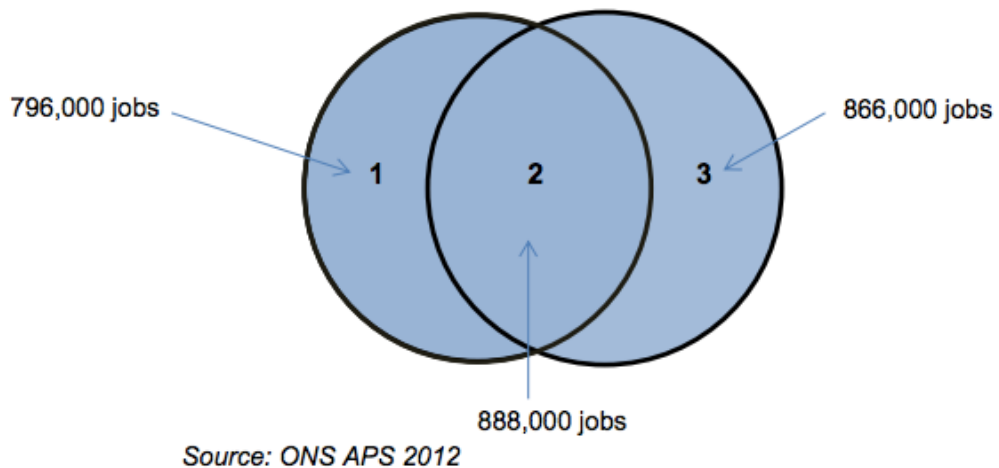
Key:
1. Jobs in the Creative Industries not classified as creative
2. Creative Jobs in the Creative Industries
3. Creative Jobs outside the Creative Industries ("embedded" jobs) (Department for Culture Media & Sport, 2014, p. 8)

Politically, the changes were proposed to grow the economic impact footprint of the creative economy, before a pressured spending review. However, the changes further side-lined the cultural sub-sectors, which 15 years previously had been at the core of the creative industries. It is the sub-sectors that have a

digital product and/or technology aided creative processes which are now focussed upon by DCMS. Nesta has shifted focus away from supporting the traditional arts, stating explicitly in the 2013 *Manifesto for a Creative Economy* that their remit "stretches from digital art to games, mentoring to media" (Bakhshi et al., 2013, p. 6), implying that only the arts and cultural organisations with digital output, fall under their umbrella. Given that the web, the manifestation of computer and software programming activities, is populated by written, video, and sound content, the cultural sub-sectors within the creative economy should be doing incredibly well. However, a large proportion of the wealth generated by the IP of creative authorship has ended up with a small number of computer and software service companies, now in the creative industries sector (Amazon - market value at September 30th 2012 was $110.7bn, Google - $222.8bn, Apple - $548.2bn, Facebook - $56.9bn).[27] Computer, software programming, telecoms and IT platforms have been an impressive engine of economic growth in the creative economy.

Nesta's 2013 *Manifesto for a Creative Economy* suggested guidelines for policy development that would move the newly defined sector forward. The manifesto should have been independent of government agenda: Nesta is now an independent charity. However, Nesta in 2013 was only a year old as an independent foundation. Prior to that, a very close relationship with DCMS existed, as Nesta's endowment is from state-franchised *The National Lottery*. It is likely, therefore, that the research behind the manifesto commissioned by Nesta (MTM London, 2012), and the manifesto itself, have strongly influenced DCMS. Given the explicit shift to an understanding of the creative industries with arts and culture sidelined, Nesta's aspirations were thus:

> "We set out, therefore, a new policy agenda to sustain the UK's creative
> economy in the next decade, based on a more constructive relationship

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[27] Bloomberg Company Reports, cited in The Economist, Dec 1st 2012 edition, http://www.economist.com/news/21567361-google-apple-facebook-and-amazon-are-each-others-throats-all-sorts-ways-another-game accessed 30 March 2013.

between technology companies and creative businesses, and on grounded definitions and data revised for the digital era" (Bakhshi et al., 2013, p. 10).

Clustering IT and telecoms driven technology businesses with creative and cultural businesses forms some tension. The commercialisation or monetisation opportunities of digital content are very different for computer and software programming companies, than they are for the content creators, and therein lies the tension currently. The content producers, the message producers, can not sustain the creation of free digital content, which feeds the business models of the IT/telecoms/technology businesses, within their traditional business models. To extend Marshall McLuhan's term "the medium is the message" (McLuhan, 1964): the "medium" – the pipes of broadband cables that the telecommunications companies own, the softwares and platforms of IT and technology companies that host the content - can grow at the expense of the "message", if the message is made available to the consumer for free. Digital piracy (copyright infringement of digital media) has increasingly threatened the economic performance of the cultural subsectors responsible for these creative works. Based on 2010 projections, and assuming no significant policy changes, the European Union's creative industries could expect to see cumulative retail revenue losses of as much as €240 billion by 2015, resulting in 1.2 million jobs lost by 2015 (Tera Consulting, 2010). The cultural sub-sectors of the creative economy will struggle to make money from digitising their products if there is no way of regulating the way that the IT and computer services sub-sector currently monetises the very same content (through advertising, and demand for their IT/computer services). If the cultural sub-sectors are to be encouraged to move from creating culture to creating digital culture, then it must be recognised that their business models come under the most strain from the new sub-sector within the creative industries they are supposed to sit alongside - software publishing and computer platforms, telecommunications and IT services. There are laws in existence against the theft of content: copyright. But the web currently rewards the cost-cutting of the value of content, and rewards the illegal sharing of content for free. The purpose of copyright is for the progress of the arts, not just about encouraging participation. Quality as well as quantity matters. However, because of the

impact of the digitisation of content, and the distribution of it, that the web enables, copyright is confused across most jurisdictions. Internet piracy is now on the agenda in the US and in the UK, with the Digital Copyright Exchange (also known as the "Copyright Hub") currently under construction in the UK.[28]

Creative economy/industries policy has explicitly shifted emphasis from analogue/physical to digital/virtual. Additionally, the recent shift in definitions by DCMS has seen traditional cultural industries side-lined to the very edge of the sector. The whole of the creative industries is assumed to be digitisable (if the edges are ignored), and therefore an important part of a growing innovation system, feeding the UK's digital economy. Some sub-sectors (those aided by technology that now have digital outputs and services such as film, media, publishing, photography, etc.) have found easier ways into a digital economy than those with live, physical outputs and assets, and community embedded services (performing arts, crafts, arts and antiques, museums and archives, for example). Practically, the risk of current policy, which supports only digital innovation, is that funds and support secured for the whole sector, will actually be optimised by sub-sectors that have more suitable business model structures for economising digitalisation - the computer programming, telecommunications, and software publishing activities - at the expense of the cultural sub-sectors' development.

Pre-digital era, art objects and cultural commodities established their value through scarcity and novelty, in analogue social networks. Post-digitalisation, many art objects and cultural commodities are no longer scarce; are given value by democratised and open social networks; and are distributed, copied and reassembled globally by computer driven, logistical networks. It is much harder for traditional arts and culture focussed sub-sectors to adapt to digitisation, and therefore the funding opportunities, driven by the digital innovation and economic growth agendas of government, are out of reach. The support agencies for the creative industries have to amplify the

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[28] http://www.copyrighthub.co.uk/

government's innovation and economic growth agendas - focussing on market value principles. By default, the development policies for the creative sector are putting opportunities for support out of reach to the incumbent arts and cultural focussed organisations that need it to adapt.

2.3.2 The new creative economy – side-lining the traditional arts, culture and heritage sector

The changing definitions of the creative industries are politically sinister for the arts, cultural and heritage sub-sectors. They have caused confusion in the political sphere; in the professions themselves; and in the minds of the general public about how to protect, grow, and engage with the value of culture. The DCMS believes that including sub-sectors grappling now with emerging technologies (IT and telecoms companies and software publishers) will put them at the top of the innovation curve. The digital lions, the IT, telecommunications, and software companies have been given permission to lie down in the same fold as the digital lambs - the traditional, incumbent cultural sub-sectors. The TSB's 2013 – 2016 Creative Industries Strategy apparently reveals an understanding of the impact of digitisation on the traditional organisations in the creative industries:

> These trends are disrupting established value chains while at the same time providing considerable potential for growth. Analysts Booz & Company argue that growth in the creative industries will be significantly driven by digital technologies and estimate this will be worth an additional £5bn to the UK economy (Technology Strategy Board, 2013).

Whilst the large growth figure looks hopeful for the arts, cultural, and heritage sectors, a deeper look at the report shows that the figure is one calculated for Google. The full title of the Booz & Company report cited by the TSB is "Booz & Company for Creative England and Google (2013) The Digital Future of Creative U.K: The Economic Impact of Digitization and the Internet on the Creative Sector in the U.K. and Europe".[29] If cultural sub-sectors are no longer central in the

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[29] Full report available at http://www.creativeengland.co.uk , last accessed 20.09.13.

sector, as their lack of digital product, service, and leverage demote them to the edges, then any creative economy policy from now on will not be so fully appropriate for or supportive of them. Cultural policy has been lost at industrial intervention level - it is now generalised as "creativity" (O'Connor, 2010, p. 69#25). This has resulted in a confusing support and development landscape in all UK nations, exacerbated by the sub-sectors collected under the creative economies umbrella, increasingly converging, and becoming harder to define as a congruent collective. Creating policy and support mechanisms for businesses and practices with outputs and services that are hugely different (from fine art to IT platforms) has been difficult for support agencies, and so traditional cultural sub-sectors have been increasingly side-lined. The focus of support agencies' funds is on economic growth, through innovation and digitisation. This offers great opportunity for organisations that are adaptable, or technologically advanced enough, to run digital innovation research and development projects, that may result in new business models. Support now skewed to creative industries sub-sectors that have digital product, and technology aided creative processes.

Creation, production, distribution, discovery and consumption mechanisms have all been completely revolutionised by digital technologies (Miege, 1989), (Levine, 2011). The challenge of how to create value in a digital landscape, where the technology and media companies have so far received the richest economic gains, remain as key challenges for traditional cultural sub-sector businesses.

2.3.3 Innovation for the few, when transformation for the many is needed

The offer of innovation and R&D funds is useful for businesses and organisations that have the capability to undertake experimentation, then follow-up with immediate scale-up and roll-out, if things work. But for many organisations, the changes in business, operational, and management models this innovation opportunity demands take much longer to shift. Businesses and organisations that are the traditional, established, incumbent creative industries specifically need support and guidance to empower them to adapt. The Digital R&D Fund for the

Arts was set up (by Arts Council England, Nesta and the Arts and Humanities Research Council). A major survey in England, commissioned in 2013 by the partners of the Digital R&D Fund identified a 'cultural digirati' of arts and cultural organisations in England. The report identified a top 10% of organisations (from a baseline of 891) that placed more importance on digital and, compared with the rest of the sector, were more likely to have larger digital audiences, and report positive impacts in all areas, in particular in financial performance. They were more likely to make use of a wide range of resources for advice and ideas, were more open to experimentation, and had digital skills spread throughout their teams (MTM London, 2013a, pp. 3-5).

The 10% organisations described as 'cultural digirati' shared a close correlation with the successful applicants to Arts Council England's and the BBC's *The Space* platform for digital art. In 2012, Arts Council England (ACE) additionally spent resources on developing one monolithic website, thespace.org, for digital arts content, built[30] in partnership with the BBC. 750 Expressions of Interest were submitted to ACE, and in total, only 53 applications were given a chance to develop content for with *The Space,* with £4m shared between them. The sheer numbers of ideas presented to both these competitions proved that there was great hunger for digital development across the sector. ACE reported, in their original press release about *The Space,*[31] that previously, c. 4% of their regularly funded organisations were considered sophisticated digital content producers, and that investments in *The Space (*and the Digital R&D Fund) were made to improve that (MTM London, 2013b, p. 8). The stated method for support to non-awardees, the remaining 90%, by the Digital R&D Fund for the Arts was by "trickle down". The plan to spread learning was through the online sharing of the case studies of the few 'cultural digirati'. This demanded explicit action of the other 90% of the cultural sub-sector - to seek out those case studies. Those organisations given no

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[30] http://www.thespace.org - the website is now a standalone not for profit organisation with a global remit, last accessed 17.11.14.

[31] http://www.artscouncil.org.uk/funding/our-investment/funding-programmes/thespace/ accessed 21.05.13.

access to opportunities for funding for digital developments were by default, given less opportunity to raise their digital capacity and capability.

By the completion of the £7m fund in 2014, just 52 projects were underway. To give some idea of the scale, Arts Council England currently (2014) has a cohort of 891 organisations it supports via grants or regular funds,[32] so just 5.8% of those organisations were undertaking funded Digital R&D projects. This is an uplift on the previous scenario, but not a huge growth in digital capability and capacity in the sector overall, despite the total investment in England of c. £11m so far, from *The Space* and the Digital R&D Fund. The English digital development support mechanisms (Digital R&D Fund for the Arts, The Space (MTM London, 2013b)) are creating a vicious cycle, which will be sped up by emerging digital technologies. The trickle down approach leaves many traditional/incumbent arts, culture and heritage organisations, practices and individuals behind. They have not adapted enough to be able to engage with the opportunity made mainly available to cultural digirati. The scenario was similar in other nations. Between 2012-2014, Nesta, Creative Scotland, and the Arts and Humanities Research Council (AHRC) joined forces to help Scottish organisations harness digital technologies to reach wider audiences and develop new ways of working with the arts through the £500,000 Digital Arts R&D Fund for Scotland, which made just 10 awards. In Wales, Arts Council Wales, Nesta and AHRC created a £400,000 fund that made just 6 awards. Interventions again are just for the few organisations that are developed enough already to engage with digital R&D funds for innovation opportunities. The funded approaches in the UK support digital innovation, but in the form of ad hoc digital projects, for the few.

87% of experts at the EU ICT Convener Meeting, surveyed in 2012, believed that the greatest changes from digitisation will come in the next 3-5 years (37%), or that they will happen on a continuous basis (50%).[33] Emerging digital disruptions include big data, wearable computing, pervasive media, and mobile

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[32] http://www.artscouncil.org.uk/funding/our-investment-2015-18/ last accessed 17.11.14.

[33] "Europe: Media", June 2013, http://ec.europa.eu/media last accessed 27.08.13.

technologies. It is only the cultural digirati that will have the capability to exploit them, having already engaged with digital innovation. Those organisations already digitally behind will fall further back. The traditional cultural subsectors provide value that should not be lost simply because it can not be quantified as part of a digital economy. Traditional cultural sub-sectors must be supported to digitally adapt – they are an important part of the creative industries' ecology.

Business and management academics Groen and Walsh stated that businesses need support to adapt to technologies, "better techniques are needed: for their management, to create policy and educate professionals to commercialise and govern them" (Groen and Walsh, 2013, p. 1). Through comparing the number of papers on a technical subject, contrasted to non-technical publications on emerging technology subjects, they reported that the necessary managerial, policy and societal considerations lag behind the scientific and technological development. Management techniques focused on emerging technologies are immature, and are often under-appreciated by managers (Linton and Walsh, 2008). Groen and Walsh called for an improvement in the "tool box" that managers and policy makers might have to responsibly and successfully develop emerging technology-based innovations. Business and management academics and practitioners have called for new frameworks and toolkits. New organisational development techniques and change management tools are required to ensure the successful digital development of traditional enterprises and institutions, as new digital technologies continue to emerge and disrupt (see 1.1, above). This is true for the traditional cultural sub-sectors, as already discussed. Green and Walsh proposed Emerging Technology Management as a new field of cross-disciplinary academic research and practical enquiry (Groen and Walsh, 2013). Emerging Technology Management has yet to emerge, but the existing field of Information Systems (IS) can contribute.

2.3.4 Information Systems - an academic discipline for the examination of the impacts of digital developments and IT on enterprise

Information systems (IS) researchers have reflected on the management of emerging information technology (IT) developments and their impacts on organisations, society, and people through interdisciplinary research for the last three decades. IS was defined in 2001 as "the effective analysis, design, delivery and use of information and information technology in organizations and society" (Avison et al., 2001). It is a discipline that embodies both theory and practice. IS looks not just at the technological and management developments and impacts of IT on organisations and society, but also at how social, psychological, and philosophical aspects are affected by IT. IS is a discipline that considers the impacts of IT, or digital developments, in practical contexts. Bello, Sorrentini and Virili *(2002)* emphasised the need for future IS research to use qualitative insights and observations (Bello et al., 2002). Despite Katz and Norbjerg provocatively arguing in 2003 that IS researchers should look at past experiences to deal with the challenges of today (Kautz and Norbjerg, 2003), Baskerville, Pries-Heje, and Ramesh (2007) called for IS researchers to conduct further studies for deeper contextual insights. They found that previous IS literature did not completely understand the impact on practice of continuously changing organisational and digital environments (Baskerville et al., 2007). This was because the research methods were mainly quantitative, or case study methods: objective, positivist approaches, rather than interpretive or qualitative. Reflecting further on this shortcoming, Baskerville and Myers (2004) discovered that action research was a rarely used research approach in IS. They published a special issue of Management Information Systems Quarterly on 'Action Research in Information Systems: Making IS Research Relevant to Practice' to prompt more interpretive research (Baskerville and Myers, 2004). By 2012, Avison and Fitzgerald, then editors of Information Systems Journal, celebrated a significant output in interpretive IS research, with an average 70/30 interpretive/positivist split of approaches reported in over 25 years of the journal. However, action research, and research undertaken in the field were rare approaches throughout (Avison and Fitzgerald, 2012).

There are notable champions of action research in IS. Shah, Eardley, and Wood-Harper state "IS researchers need to learn from practice with practitioners and this is in some ways the essence of IS… utilis[ing] action research (AR) to facilitate the research, to initiate practical change and to foster organisational learning" (Shah et al., 2007, p. 761). Enid Mumford used action research as an approach to highlight the participative and socio-technical nature of IS development (Mumford, 1979). Action research was explicitly incorporated into Multiview, an IS development methodology by Trevor Wood-Harper (Wood-Harper, 1985), (Wood-Harper et al., 1985), and (Bell and Wood-Harper, 2003). Lau and Kock have enthusiastically supported the use of action research in IS, see (Kock, 2006), (Lau, 1997), and (Lau and Kock, 2001). Perhaps the best known systemised action research based approach to helping organisations to adapt to information systems was developed and practiced by Peter Checkland. He set out in the early 1970s to test whether the Systems Engineering (SE) approach proven in solving technical problems could be used in organisational life. He found that SE could not be transferred to the broader situation of management of organisations, where people (not just systems) made up the enterprise. Individuals each brought different 'world-views' to a situation, leading to varying understandings and evaluations of it, and therefore different ideas for positive action (Checkland, 1972).

Checkland developed Soft Systems Methodology (SSM) as a set of principles to enable action by taking these differences into account. SSM distinguishes itself from hard systems approaches that understand systems as concrete entities by instead seeing systems as a construct. The perspectives and values of stakeholders, clients, and staff are just as important as the physical assets and infrastructure. All these aspects of a system must considered, and involved in the identification and solving of problems. Checkland's original version of SSM as a seven-stage methodology (Checkland, 1981) has been iterated through time via action research, through the ongoing process of researchers and practitioners using it in different contexts. It has been used successfully as a learning, evaluation and problem solving system in human activity systems (Checkland and Scholes, 1990)

and (Checkland and Poulter, 2006), and in information system design. Avison and Wood-Harper blended SSM with established software engineering and action research methods to create Multiview Conceptual Models in software design (Avison and Wood-Harper, 1990). Checkland and Howell used SSM conceptually to support analysis and evaluation in a number of information systems design projects (Checkland and Holwell, 1998). They point to the use of SSM and PAR as an 'experienced' SSM where the seven stage process 'is internalized by practitioners who start from, and remain immersed in, the problem situation addressed' (Checkland and Howell, 1998, p. 163). This expert use of SSM is used to make sense of the emerging experience of organisational change.

However, Moores and Gregory criticised SSM commented that many organisations had found it (organisationally) counter-cultural because it overvalues conceptual modelling (Moores and Gregory, 2000), and others suggest that the transferring of the principles of SSM into organisations is problematic (Ledington and Donaldson, 1997). SSM has been criticised for being too complex intellectually for organisations to adopt (Patching, 1990) - the introduction of the new ideas and practices could not be achieved in a day (Mingers and Taylor). The theoretical contribution of this study will explore some of these issues.

2.4 Conclusion

The literature reviewed in section 2.1 showed that disruptive technologies have always impacted business, including creative enterprises ((Christensen, 1997), (Rigby and Corbett, 2002), (Rafii and Kampas, 2002), (Charitou and Markides, 2003), (Daneels, 2004), and (Markides, 2005)). This usually results in creative destruction (Schumpeter, 1934, p. 66), (Abernathy and Utterback, 1988), (Spencer and Kirchoff, 2006), and (Cowan et al., 2004). Creative destruction results in incumbent businesses coming under pressure as they try to execute innovations simultaneously with business as usual, and smaller and new firms are more likely to develop disruptive innovations and take over their place in the market (Foster and Kaplan, 2001), and (Bower and Christensen, 1995).

A call for research, into whether creative destruction is countered by industries with structured networks which enhance open innovation, is made (Cowan et al., 2004), as is a call for more interdisciplinary research into the evolution of industries (Malerba, 2006, p. 19).

Creative destruction as a concept does not follow the standard pattern in the creative industries. The status quo phase of analogue creative artefacts, products, services and experiences has a significantly longer time duration. Digital technologies, content, and product however tend to have rapid journeys around the cycle, as new and emerging technologies and markets demand change. Larger institutions in particular have resilience to creative destruction, but even they are becoming dysfunctional and ineffective as digital technologies disrupt them (Hagel III and Seely Brown, 2013) and (Stewart-Weeks and Tanner, 2014). It is suggested that an area to study to advance the field of knowledge might be to examine whether institutions in networks have better adaptability capability because knowledge is shared.

Open innovation offered new terminology and a new managerial paradigm for describing what happens when companies purposefully source ideas for innovation from wide and open networks, that span not just the company, but also many other organisations, and individuals. Companies practising open innovation also expand the market for the external use of internal innovations. Incumbent companies and institutions practicing open innovation challenge the creative destruction theories usually associated with disruptive technologies (Chesbrough, 2003) and (Chesbrough, 2006). An emerging theme for open innovation research is to seek "newer and better approaches to measuring open innovation, considering the network or ecosystems of open innovation as a unit of analysis (West et al., 2014) and (Mitra and Sagagi, 2013).

The literature of disruptive technologies and creative destruction, and of open innovation, has provided broad understanding of the likely impacts of new technologies on business models, operations, and management. Impacts on

incumbent institutions of scale and history, and impacts on the sector as a whole, as new businesses create new products and markets. Examining whether incumbent organisations and institutions working in networks to share openly knowledge and practice in order to adapt was identified as an area requiring further study.

The literature reviewed in section 2.2 showed how changes in terminology and definition have occurred because of both an age-old tension between culture and economics, and because of the impact of digital technologies. It focussed on the evolutionary history and theory of the cultural and creative sector, and how this has influenced the emergence of today's creative industries/economy, the sector chosen for this study. It highlighted the policy and support landscape for the creative sector which has rapidly changed over the past two decades, as governments seek to ensure the economic impacts of digitisation are embedded in the key sectors whose growth they support (Briggs and Burke, 2005), (Adorno, 1991), (Miege, 1989), (Hesmondhalgh, 2007), (O'Connor, 2010), (Garnham, 2005), (United Nations Conference on Trade and Development, 2008), (Technology Strategy Board, 2009), (Technology Strategy Board, 2012), (Department for Culture Media & Sport, 2013), (Bakhshi and Throsby, 2012), (Higgs et al., 2008), and (O'Connor, 2009).

The literature reviewed in section 2.3 revealed the tension in the current definition of the creative sector as the 'creative economy'. A new clustering of IT and telecoms driven technology businesses, software and computer services have been combined with creative and cultural businesses to form the current definition of the creative economy, and this creates some tension. Creative economy policy has explicitly shifted emphasis from analogue/physical to digital/virtual.

The shift in definitions has seen cultural industries side-lined to the very edge of the sector. The digital lions, the IT, telecommunications, and software companies have been given permission to lie down in the same fold as the digital lambs - the traditional, incumbent arts and cultural industries. Politically, the

changes were proposed to grow the economic impact footprint of the creative economy (Bakhshi et al., 2013), (Department for Culture Media & Sport, 2014), and (Department for Culture Media & Sport, 2013).

Policy now supports the development of digital innovation, digital product and/or technology aided creative processes (Technology Strategy Board, 2013). The focus of support agencies' funds is on economic growth through innovation and digitisation. This offers great opportunity for organisations that are adaptable, or technologically advanced enough, to run innovation and digitally focussed research and development projects that may result in new business models. Support is likely to be skewed to creative economy sub-sectors that have digital product and technology aided creative processes.

The cultural sub-sectors are no longer central in the sector, as their lack of digital product, service, and leverage demote them to the edges. Creative economy policies for growth from now on, will not be so fully appropriate for or supportive of them. Cultural policy has been lost at industrial intervention level. The challenge of how to create value in a digital landscape where the technology and media companies have so far received the richest economic gains, remain as key challenges for cultural businesses (O'Connor, 2010, p. 69#25), (Levine, 2011).

Programmes providing development support solely for digital innovation emerged, creating a 'cultural digirati' - a top 10% of organisations in the cultural sub-sectors that are able to secure support for digital innovations. This has created a vicious cycle, which will be sped up by emerging digital technologies - it is only the 'cultural digirati' that will have the capability to exploit them, having already engaged with digital innovation (MTM London, 2013a), (MTM London, 2013b).

Business and management academics and practitioners have called for new frameworks and toolkits. As already stated in the Introduction (1.1.4), above, academics and practitioners in the fields of change management and strategy development for entrepreneurship are seeking validated frameworks, which deal with faster-changing environments, and which have been tested with people using

them in practice. New organisational development techniques and change management tools are required to ensure the successful digital development of all institutions and enterprises, as new digital technologies continue to emerge and disrupt (Groen and Walsh, 2013), (Linton and Walsh, 2008) and (Webb, 2014). The cultural sub-sectors have specifically nuanced needs here, which standard change management and organisational development techniques and tools do not specifically deal with. Their product is either an artefact, service, or experience whose value to customers and in the market may be measured against social, spiritual, and aesthetic benchmarks, rather than being measured as a purely economic impact.

Information Systems (IS) literature was reviewed. IS is an academic field focussing on examining the impacts of digital developments and Information Technologies (IT) on enterprise. Given the disruption to the practical contexts of the creative industries, and the driver of the disruption being digital/IT, IS is an appropriate (inter)disciplinary lens through which to consider a framework for business transformation, needed to support the creative sector to adapt and change.

The interdisciplinary approaches of the thirty year research base in Information Systems (IS), also champion qualitative interpretive researching, in the field, of the impacts of digital disruption. IS looks not just at the technological and management developments and impacts of IT on organisations, but seeks to ensure relevance in practice, and practical knowing (Mumford, 1979), (Checkland, 1981) (Avison and Wood-Harper, 1990), (Baskerville and Wood-Harper, 1996), (Checkland and Holwell, 1998), (Avison et al., 2001), (Bello et al., 2002), (Baskerville et al., 2007), and (Avison and Fitzgerald, 2012).

This doctoral study focuses on the development and evaluation of an organisational development approach that helps incumbent businesses and institutions become adaptable and resilient to the impact of disruptive technologies. *The AmbITion Approach* has been developed by empirical work in the field to be a research methodology and practice. The method and practice both captures theoretical learnings about change, and creates practical knowing

about implement and modifying change iteratively. The approach introduces a set of concepts, methods, tools, and processes. Through a longitudinal study, it was validated with organisations operating in environments of continuous evolution, investigating phenomena whilst considering the cultural and contextual circumstances, and participants' perspectives. New frameworks and practical toolkits have been evaluated in the field to prove their validity. The approach utilises multidisciplinary methods, and encourages organisations and institutions to work in online networks to share openly knowledge and practice, in order to adapt and innovate. It is now contextualised in chapter 3, below.

3.   Contextualising the investigation

As the emergence in 2013 of a "cultural digirati" proved (the top 10% of cultural sector organisations, that are reaping the rewards of digitising their practices (MTM London, 2013a), most organisations fail to cope with the widespread changes that digital disruption demands on all areas of a business. The literature review of chapter 2 revealed the need for new organisational development approaches to help incumbent businesses and institutions become adaptable and resilient to the impact of disruptive technologies.

The AmbITion Approach is an organisational development approach for creative organisations. It has developed over time, and sections 3.1 and 3.2 of this chapter describe the historical development of the concepts, methods, tools, and processes that formed *The AmbITion Approach*. The development of the approach's methodology, prior to the empirical work of this study, is clarified. Practical and theoretical knowledge has influenced its development: following practice-based feedback; following learnings highlighted by formal evaluations; and following academic research for this study.

This chapter also contextualises the specific digital disruptions that have impacted the creative sector. New digital technologies have hugely impacted business practice in the sector, by requiring the digitisation of product, distribution channels, and consumption methods. This is analysed in section 3.3. Section 3.4 offers summaries and conclusions regarding the context in which began the empirical work for this study.

3.1 A brief history of *The AmbITion Approach*

3.1.1 Overview of The AmbITion Approach

The history of *The AmbITion Approach* is important to describe, as the current version of it evolved and iterated over time. This section covers the history of the development of *The AmbITion Approach* briefly, a fuller description of the development of AmbITion programmes and their evaluations, is available in Appendix 13. *The AmbITion Approach* (Rudman, 2012) was designed to facilitate the holistic digital development of the arts, cultural, and heritage sub-sectors of the creative industries. It was created to ensure the traditional analogue business models, products, and services were enhanced by new digital opportunities. *The AmbITion Approach* was borne from change management methods used in digital development programmes for the arts, culture and heritage sector, its design has been iterated since 2007 (see Appendix 13). It is a change management framework and toolkit, to facilitate the introduction of management and development techniques suitable for cultural organisations and practices trying to adapt to the impact of emerging disruptive digital technologies. The practice-based approach supports organisations to adapt, by helping them change business, operational, and production models, to be fit enough to cope with ongoing digital disruption. The persistent introduction of new digital technologies means that moving through the journey, must be rapid and cyclical. Learning, during the movement through the journey, must be practical and applied (not purely theoretical or applied from the book or evaluated case study which would take too long to emerge), and risk taking, doing, and sharing emergent practice is essential.

The AmbITion Approach began life in 2007 as a prototype change management and learning model to support sustainable change and adaptation, which would sit at the heart of AmbITion programmes. The first iteration of the model was refined with aspects of design thinking and practices and action learning methods, and a toolkit was published online in 2010. The framework and toolkit was refined again, following a pilot study, early empirical work of this PhD study, in

2012. *The AmbITion Approach* then was reframed through the methodology of participatory action research, and enhanced by modern management consultancy tools and creative practices. Below in figure 3.1.1.1 is an overview of *The AmbITion Approach*'s development through time:

Figure 3.1.1.1 *The AmbITion Approach*'s development through time

Programme	2007-09	2009-11	2012-13
Key facts	**AmbITion pilot programme** 15 organisations funded by ACE* to participate in 2 English regions 500 organisations nationally reached by roadshow and online networks	**AmbITion Scotland** 15 organisations funded significantly by CS** as partners 40 organisations funded by AmbITion to participate as associates 750 organisations & 1800 sector professionals involved nationally	**AmbITion Scotland** c. 25 organisations funded by AmbITion to undertake *The AmbITion Approach* 45 organisations funded by AmbITion to undertake other development work 850 organisations & 2000 sector professionals involved nationally
Approach overview	Preliminary diagnostic audit Business case, workplan & contract Supported Implementation Evaluation	Audit Diagnostic Business Case Development Managed Implementation Reflection & Evaluation	Audit (plan/think/discover) Diagnostic (plan/think/discover-define) Develop Business Case (do/act/define develop) Implementation (do/act/deliver) Continuous reflection (check/reflect/deliver-discover
Tools included	Application documentation Paid for consultancy support for business case development and implementation Some pro formas distributed Online network introduced Case studies produced by AmbITion team	As 2007-09 PLUS: Online & downloadable *AmbITion Approach* toolkit for organisations & consultants including more pro formas & planning documents. Online network enhanced with learning resources	As 2009-11 PLUS: Updated toolkit formalising action learning approach & adding design thinking tools & Business Model Canvas Make IT Happen Fund administered by AmbITion & run through simple online forms Case studies created by organisations Reflectionnaires
Evaluation overview	External evaluation of programme by Cambridge University, ethnographic approach, in person	External evaluation of programme by Culture Sparks, qualitative and quantitative approach via in person and online examinations	External evaluation of wider Scottish digital development programme (including AmbITion) by Tom Fleming Creative Consultancy via observation and interview Internal evaluation via reflectionnaire & blog questions

(For a full description of the development of AmbITion programmes, and their evaluations, see Appendix 13.

3.1.2 *The AmbITion Approach*'s initial methodological development

The AmbITion Approach methodology has iterated over time. The original change management process (practiced in the 2007-09 pilot programme) was initially delivered in four phases:

A **preliminary diagnostic**: to audit current IT and digital content use and capacity, identify potential areas for development then consider the benefits, costs, risks and impact on operations and staff

Output: a coherent business case for digital technology driven change

Workplan and contract development: change programme decided upon, timetabled and costed in detail.

Output: financial allocation.

Implementation: each participant organisation project managed the agreed change programme, supported by the AmbITion programme's consultants, service providers, and central team. Networks and action learning sets were set up to encourage peer learning and support - any interested organisation could also benefit from this.

Output: completion of the change programme.

Final evaluation and dissemination of findings: the evaluation process was to be continuous from the initial diagnostic to the final evaluation measuring the impact of the changes.

Output: case studies (shared via the web, and a national AmbITion conference which would tour the country).

These phases were based on the Deming Cycle method of organisational change management (see Figure 3.1.2.1, below):

Figure 3.1.2.1 The Deming Cycle
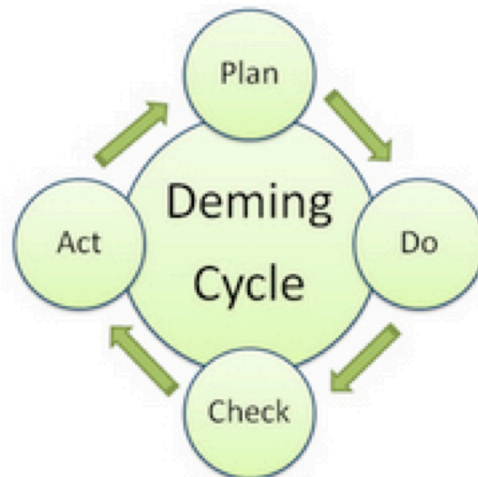
The original method of this change management cycle goes back to Francis Bacon in 1620 (*Novum Organum*), with his development of the scientific method: hypothesise, experiment, evaluate. Statistician and consultant W. Edwards Deming reinterpreted this into his cycle, now globally recognised as the basis of modern organisational change management principles – plan, do, check - then act, or back to planning (Deming, 1993).

Following the success of the pilot (see Appendix 13), a larger number of organisations became involved in AmbITion programmes. The national remit of the programme in Scotland, and the more focussed aims and outputs, meant that the programme geared up as both a live and virtual opportunity, optimising online web and social media tools. With more organisations on the programme, and with many of them too geographically remote to attend live events, it became an obvious need to write down the organisational change management approach, so that it could be shared widely. *The AmbITion Approach* became formalised as the title for a formalised and written up process, and toolkit. The first written iteration of this added in design thinking principles and action learning processes.

3.1.3 The addition of design principles and action learning processes

Some of the tools, attitudes, and techniques of design practice were blended with the organisational change management methods of the pilot phase. Design

practice techniques were formalised as "the 'double diamond' design process model" by the Design Council in 2005 (Figure 3.1.3.1 below)[34]. The diagram was developed through in-house research as a simple graphical way of describing the design process and different modes of thinking that designers use.

Figure 3.1.3.1 The Design Council's definition of the design process
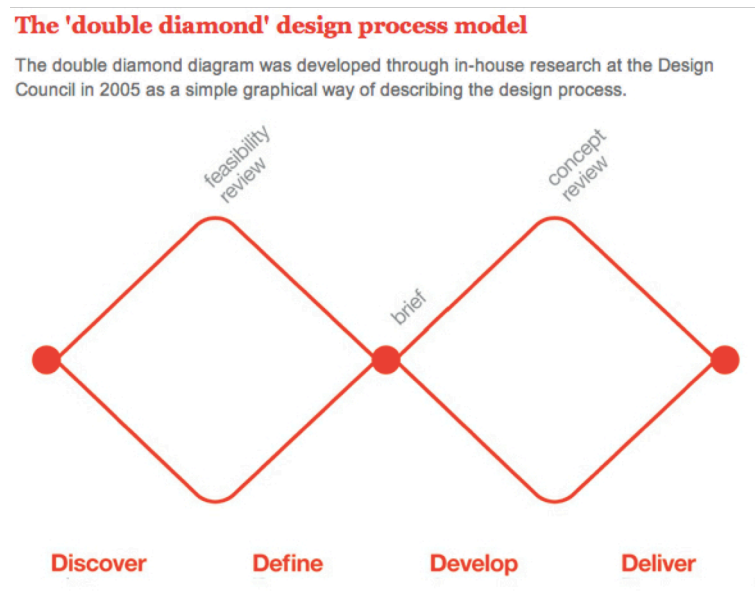
The design process model was added into *The AmbITion Approach* to encourage the contiguous engagement with the design process of: discover, define, develop, deliver.

3.1.4 Creative practices explicitly added in, to assist change journeys

Creative thinking skills have long been recognised as a method for problem solving in a rapidly changing world. Creative thinking is an activity that involves conscious and subconscious mental processing and is described by academic exponents Lumsdaine and Lumsadaine (1995) as:

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[34] See http://www.designcouncil.org.uk/sites/default/files/asset/document/ElevenLessons_Design_Council (2).pdf last accessed 17.02.13.

playing with imagination and possibilities, leading to new and meaningful connections and outcomes while interacting with ideas, people, and the environment (Lumsdaine and Lumsdaine, p. 14)

It is divergent, and lateral. (Analytical thinking on the other hand is a convergent, logical thought process leading to one or a small number of solutions). Brainstorming is the best known of creative thinking techniques, and has long been used as a technique to generate hundreds of ideas from brilliant winners to the completely silly and useless. It was developed in the 1930s by Alex F. Osborn as "a means for getting a large number of ideas from a group of people in a short time" (Osborn, 1957, p. 5). Analytical thinking can only be applied to brainstormed ideas some time after the brainstorming session, evaluation is always done later. It is a great mechanism for generating solutions and ideas that are wide ranging and far seeking (Rawlinson, 1981). Brainstorming is a creative practice included in the diagnostic section of the *AmbITion Approach*, as it fits well with action research and design methods and practices. Organisations were encouraged to use brainstorming as a creative technique during the diagnostic phase of their change cycle. Advice on how to run successful brainstorming sessions is included in the online toolkit.[35]

3.1.5 *The AmbITion Approach* visualised

Figure 3.1.5.1, below, demonstrates the process in diagram form, highlighting the blending of the Deming cycle and design process.

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[35] See http://www.getambition.com/learn/toolkit/2b-diagnostic-ideas/ last accessed 19.01.15.

Figure 3.1.5.1 *The AmbITion Approach* diagram showing the blend of cross-discipline methods

Change Management//Action Research//Design Thinking

Plan//
Think// Discover

Audit your organisation

Diagnose your needs

Plan//
Think//
Discover-Define

AmbITion Methodology

Develop your business case

Do//
Act//
Define-Develop

Check//
Reflect//
Deliver -Discover

Reflect and Evaluate

Manage your implementation

Do//
Act// Deliver
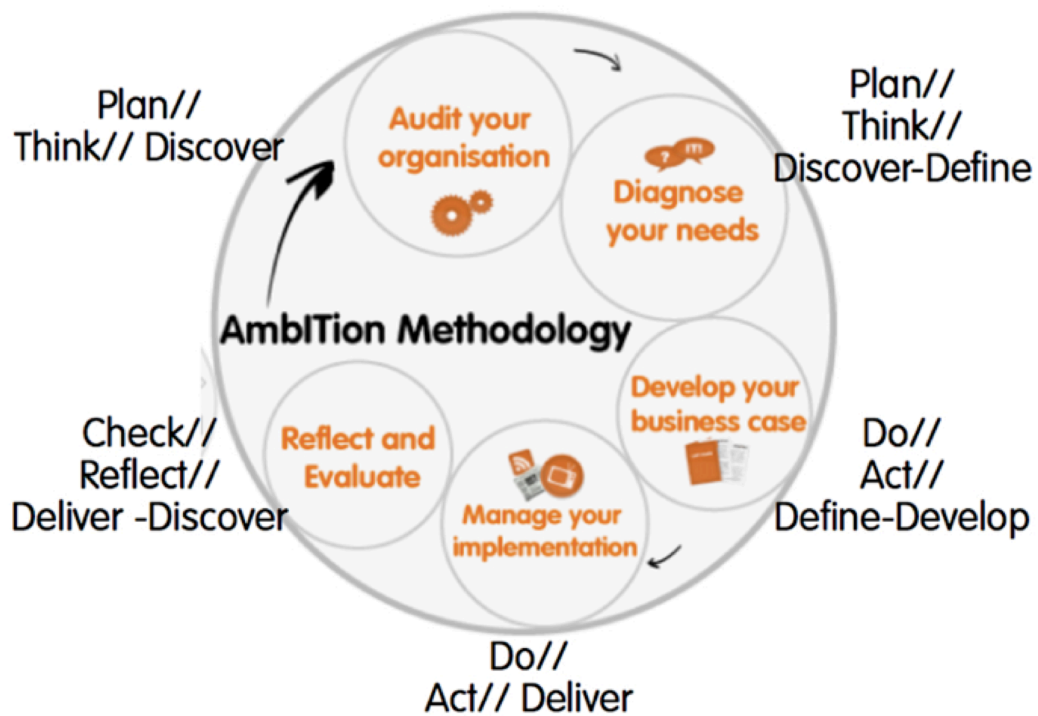
The AmbITion Approach was created to encourage adaptation and transformation, not just assimilation. It was published online as a series of webpages and associated resources, that could be easily navigated step-by-step for those wanting to guide themselves through the process at http://getambition.com/learn. This ensured *The AmbITion Approach* could be undertaken as a self-directed change journey outwith the existence of a wider, live programme - a self-help model. The online resources, case studies, and network from past and current live programmes acted as a supportive virtual "programme" for any organisation to engage with, anytime, anywhere. The output to be achieved was an implemented, overarching digital strategy that was confluent with the vision, mission and strategic purpose of the organisation, and congruent with its existing assets. The ideal environment therefore for undertaking *The AmbITion Approach* was considered to be amidst a wider programme. Knowledge exchange, networking, and sharing, practical and applied learning,

risk taking, and the sharing of practices as they emerged could be aggregated, and shared by a programme. The collective knowledge and confidence of the whole sector would then grow, and potentially, sectoral adaptation could be achieved.

3.2 *The AmbITion Approach* and its inclusion in national digital development programme AmbITion Scotland 2012-14

A pilot programme was established in England between 2007-9. A national programme was then run in Scotland, between 2009-11 (see for full description of the development, outputs, and evaluation of these two programmes in Appendix 13). The AmbITion Scotland 2012-14 programme was then commissioned. It ran as a national digital development programme for the culture, arts and heritage sector, funded by c. £1.1m from The National Lottery, via Creative Scotland. The programme was designed and delivered by Rudman Consulting[36], in partnership with Culture Republic.[37] *The AmbITion Approach*'s methods and tool set were refined again in 2012, following the pilot study of this PhD research, and used in the AmbITion Scotland 2012-14 programme. This section outlines the broader context of the 2012-14 programme, within which the further refined approach and toolkit took place.

3.2.1 Context

The AmbITion Scotland programme of 2009-11, which used the early *AmbITion Approach* described above in 3.1, had seeded the critical mass of demand for digital development in Scotland's cultural sector. AmbITion Scotland 2009-11 had delivered a national programme of holistic organisational digital development that measurably improved capability, confidence and capacity – causing step changes for the businesses involved The aim of AmbITion Scotland 2012-14 programme was to strengthen the sector's ability to seize the opportunities of digital creativity and collaboration. The process of undertaking *The AmbITion Approach* during

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[36] See http://consultrudman.com

[37] http://www.culturerepublic.co.uk

the AmbITion Scotland 2009-11 programme had been considered too time consuming, and too formal (for the reasons described in detail in Appendix 13). A number of steps were taken to remedy this:

- A £400,000 fund was created to be devolved and distributed by the programme team - to ensure that arts, cultural and heritage organisations could more easily access the funds and so quickly get on with developing and undertaking opportunities. (Accessing of funds via Creative Scotland was the part of the programme which had caused most frustrations during 2009-11).
- The creation of the devolved fund enabled the clarification of the offer and process through an information system - getambition.com – open and password protected webpages.
- The programme team was able to establish simpler guidelines, contractual arrangements for distributing grants, and application processes.

The AmbITion Approach was embedded in the AmbITion Scotland 2012-14 programme design, with its concepts, tools, and methods and process being an integral part of the programme. Explicitly, one of funds of AmbITion Scotland 2012-14 was specifically to encourage organisations to undertake *The AmbITion Approach* (see screenshot Figure 3.2.1.1, below):

Figure 3.2.1.1 The landing page of the funds, showing the AmbITion Approach Fund (screenshot, 2012)

The 2012-14 programme had ongoing rounds of competition into the fund for organisations to undertake *The AmbITion Approach*. It was open every quarter, and 31 organisations applied between August 2012 and September 2013 over five rounds in total. Over 2012-14, 21 arts, culture, and heritage organisations undertook *The AmbITion Approach*. Research outcomes for this study have been achieved through the analysis of data gathered at several stages of an organisations' change journey, via the research instruments embedded in *The AmbITion Approach*'s information system. This is described in detail in chapter 4 (4.4, below).

3.2.2 *The AmbITion Approach* refined with action research methodologies

Following the feedback from the AmbITion Scotland 2009-11 programme (see Appendix 13), *The AmbITion Approach* needed to be more flexible, better linked to case study examples, and other learning resources, better supported by proformas and tools, and easier to navigate and dip in and out of online. As well as aligning the approach with action research phases, as described in chapter 4

(4.1, below), this rewrite also broke down each section of the approach into more manageable chunks of activity and clearly defined tasks - see the left-hand column menu and diagram (see figure 3.2.2.1, below):

Figure 3.2.2.1 Menu of the extended online navigation and diagram of _The AmbITion Approach_ (screenshot, 2012)

This helped organisations see how engaging with the approach would help them deal with some of the specific challenges of digital disruption their businesses faced.

3.3 The specific digital context and challenges for the creative sector

This section considers specific impacts of digitisation on the creative sector, and considers the adaptation demanded of its organisations, and practices.

3.3.1 The general challenge of "getting digital"

The development and deployment of digital ICTs has disruptively impacted all areas of the creative sector: creation and production, discovery and distribution, and consumption and experience of cultural goods and services (Miege, 1979), (Levine, 2011). In the music sector, physical format such as CDs and vinyl sales have been overtaken by digital revenues.[38] In film, the disruption is visible in the demise of bricks and mortar film rental businesses (e.g. Blockbusters), and in-mail DVD rental (e.g. LoveFilm*)* which is now forced to compete, in the UK, with video–on–demand services from Netflix and Amazon (Ofcom, 2012). Some creative businesses have product and services more predicated to easy digitisation, but the challenge is clearly stated by the European Commission Green Paper, *The Unlocking the potential of the cultural and creative industries* (2010). It states that challenge the sector faces, is how to manage the change and cost of "getting digital - keeping business going under a traditional business model while managing the transition to new business models still under development could be difficult for many creative enterprises" (European Commission, 2010, p. 4).

The rise of digital technologies has been paralleled by a severe decline in analogue formats. The Ofcom Communications Market Report (2012) clarified that within the UK, all the main newspapers suffered big reductions in print circulation and many smaller titles disappeared entirely (Ofcom, 2012). Even digitally successful newspapers, like the *Financial Times* no longer made as much advertising revenue as they did. Despite the *Financial Times' success in* convincing over 300,000 digital subscribers to pay (mid 2012 figures), "today, 35-40% of revenues are from advertising versus around 85% 10 years ago", stated

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[38] See http://www.bpi.co.uk/media-centre/digital-revenues-overtake-physical-in-uk-recorded-music-market.aspx , accessed 18.05.13.

John Ridding, chief executive of the *Financial Times*.[39] Businesses like the *Financial Times* have had to be able to simultaneously run traditional business models, and manage the change of implementing new business models. The implications for them have included the digitisation of content; the complex issues concerning digital rights management; developing digital organisational capacity; increasing digital capability in terms of skills; and investing in and testing new business, management and operation models suitable for a digital economy.

3.3.2 Creation and production: from copyright, to piracy, and free

It has never been easier to distribute creative work because of digitisation. Simultaneously, it has never been harder to get paid for it - despite copyright (Levine, 2011). Intellectual property rights are assigned to works that are devised through the mind by intellect or imagination. Inventions and how-it-works/know-how are protected by patents; brands by trademarks; designs by design rights; and creative content by copyright. Copyright, which protects many types of creative work, is at the heart of legal protection for the creative sector:

> Copyright is a property right which subsists… in the following descriptions of work:
> A) original literary, dramatic, musical or artistic works
> B) sound recordings, films or broadcasts; and
> C) the typographical arrangements of published editions. (MacIntyre, 2010)

The 'author' refers to the person who creates the work: in the case of a sound recording, the producer; in the case of a film or theatre show, the producer and principal director; in the case of a broadcast, the producer; in the case of a literary work, the publisher (note: not necessarily the writer of the work, who may be known in popular terms as "an author") . The author has other moral rights: to be identified as the author; to object to derogatory treatment of the work; and the

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[39] Robert Andrews, "Interview with John Ridding of the FT on Paywalls and Passion", 01.08.12 http://paidcontent.org/20120108 last accessed 27.08.13.

right to privacy in certain photographs and films. The owner of copyright has exclusive rights to:

- Copy the work (including digitally by technological means)
- Issue copies to the public
- Rent or lend the work
- Perform, show or play the work in public
- Communicate the work to the public (by broadcast or digital transmission)
- Make adaptations of the work

Copyright usually stands for 70 years after the death of the author/producer; or for 70 years after the date of the first broadcast of a broadcast or sound recording. Performers in an event of dramatic, musical, recital or reading have moral rights, and if it is recorded then their consent is required to allow all the rights listed above[40]. Copyright emerged as term in the early 16th century, when churches and governments tried to regulate the output of printing presses, through copyright law. The first copyright act was issued by a pioneering Britain in 1707 (the Statute of Anne), but multilateral understanding and definitions were only standardised and automatically granted multilaterally and between nations, at the first Berne Convention in 1886 (Patterson, 1968). It was a traditional western paradigm to consider copyright as the sole value of content, and until the Internet became ubiquitous, it worked as the legal framework for protecting the work of creatives, artists, and cultural organisations. This in turn enabled the pragmatic framework of collections agencies and contracts that gathered and dispersed the incomes to copyright holders. New technologies have rapidly emerged since 1995, challenging the integrity of intellectual property rights, including copyright for a number of different reasons (Boldrin and Levine, 2008).

Pre-Internet, intellectual property rights, including copyright, worked for the cultural industries, creatives, and artists, to protect the rights and the revenues earned by those rights. Copyright extends to a digital version of any content (or media), but rapid changes in the technologies used to produce content has

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[40] Information from the Copyright Hub http://www.copyrighthub.co.uk

meant that many different copies are online, manifesting varying qualities, and file sizes (Levine, 2011). All of these copies would need to be protected by the copyright holder, but the Internet has seen a profligacy of file sharing technologies, and technologies that cracked any Digital Rights Management (DRM) techniques such as watermarking, encryption, and fingerprinting. It has therefore become very easy to replicate and duplicate copies of content digitally, and an Internet culture of casual copying, open sharing, and anonymity means that illegal downloading and pirating is hard to regulate, trace, and punish (Social Science Research Council, 2011). Only the bigger video and music hosting platforms (e.g. YouTube, owned by Google) have implemented filtering procedures to seek out copyright infringing content and issue its creators with Digital Millennium Act takedown notice procedures[41]. Conversely, Google's *AdSense* (the adverts that pre-roll or interrupt or overlay rich media content such as online video) can still be implemented on pirated material on non-Google platforms. This means pirates are being financially rewarded for their efforts, and this is not an incentive to remove the content. Piracy is no new phenomenon: illegal availability of content has always been a reality for the creative sector. However, sites that use pirated material drag down the price of online advertising, and make it difficult for those creating original content to host their own websites. Website operators cannot afford the production cost to make both the content, as well as the website. By creating a free option for most online content, piracy has effective driven the price down to zero (Levine, 2011).

There has been some positive movement from Google to counter piracy. In August 2012, they agreed to downgrade in their search rankings, the websites of persistent, commercial-scale copyright infringers.[42] Perhaps this was because a

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[41] See for details of the procedures:

http://www.dmca.com/Takedowns.aspx?ad=dtddmcawrds&gclid=CMm2ls_NsLUCFeTMtAodNwo ACg . Accessed 12.02.13.

[42] See: http://www.telegraph.co.uk/technology/google/9472228/Victory-for-music-and-film-industries-as-Google-beginspiracy-crackdown.html , accessed 18.05.13.

case for reform had been called for by Maria Pallante, the Register of Copyrights of the US. Pallante called for a comprehensive modernisation of copyright law:

> Authors do not have effective protections, good faith businesses do not have clear roadmaps, the courts do not have sufficient direction, and consumer and other private citizens are increasingly frustrated.[43]

A survey of 1244 US arts organisations that received grants from the National Endowment for the Arts (NEA) in 2012 found that technology use permeates most arts organisations, especially in their marketing and education efforts,

> Yet the majority of these arts organization respondents also say that technology contributes to an expectation that "all digital content should be free": 74% agree with that statement. (Thomson et al., 2013)

The creative and production aspects of the creative sector's value chain have been hugely impacted by digitisation's effect on copyright. Traditionally used to being the guardians of quality, and gatekeepers of control and access, creative and cultural organisations have faced rapid changes and loss of control, as digital developments fundamentally changed products, services and experiences. The creative sector also faces the challenge of how to make money digitally, when consumers expect its assets and content to be free to them. Free to the end-user is an expectation, which has been built through both the prevalence of ad-supported digital content businesses, and piracy. Digital developments have also disrupted significantly how and when content and product is distributed and discovered.

3.3.3 Distribution and discovery: mobile computing and crowdsourcing

The Arab Spring of 2011/12 showed the power of the masses connected to digitally enabled crowd networks and global technology - the revolutions scaled, mobilised, and accelerated, as governments failed to shut down and censor digital communications channels (Schmidt and Cohen, 2013, p. 11).

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[43] March 20, 2013 Statement to the US House of Representatives, 113th Congress, First Session, by Maria Pallante.

Mobile connectivity has changed the way people connect to the Internet. With ever cheaper digital devices, and mobile broadband, accessibility to the Internet has become ubiquitous, overcoming socioeconomic factors that previously prevented large sections of global society, especially developing nations, from being connected to the Internet in a pervasive way (United Nations Development Programme, 2011). The inflection point of number of mobile broadband connections overtaking the number fixed-line connections occurred in 2010. This influx of users interacting with the Internet through mobile devices is changing the Internet, as well as the communications and computing industries. It was predicted that the inflection point in sales of the number of mobile and tablet devices to exceed the sales of laptops and desktops would occur in early 2014. This turns interaction with the Internet into an experience that can be had anywhere, mobile computing is with people wherever they go in real time, consumers no longer need to be tied to a desktop or fixed line connection (INSEAD, 2012). Tablet ownership doubled in the year 2012-13, with 24% UK homes having a tablet device, and the average UK home owning three different types of internet-enabled device (Ofcom, 2013). The World Economic Forum's Global Agenda Council set the goal of mobile connection for all by 2015.[44] With always on, always connected devices, digital experiences can be created as easily as they can be consumed. Individuals have been given empowering and transformative devices that allow them to learn, share, and make monetary transactions. They also have access to the huge archives of content available via the Internet: whilst this increases audiences for content producers, it does not necessarily increase creative sector revenue streams. "Copies" seen or downloaded often benefit more the digital platforms, and their advertising revenues.

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[44] The newly renamed Telecom Industry Global Agenda Council envisions a world in the next five years in which everyone is connected with sufficient access to an Internet-based, open ecosystem of information, devices and applications through incentives for technological, social and business innovation. See Acatel-Lucent's Ubiquitous Access Study for the World Economic Forum: http://www2.alcatel-lucent.com/wef/index.php?option=com_content&view=article&id=2&Itemid=5 , accessed 12.02.12.

As well as mobile computing, crowdsourcing has also impacted the acceleration of interconnectedness. Crowdsourcing, a term conjoining the terms outsourcing and crowd, was coined by Jeff Howe in 2006 (Howe, 2006). It is a significant digital disruption because it globalises and democratises ideas (Schmidt and Cohen, 2013). Crowdsourcing has been significantly amplified because of mobile computing, and is both a threat and opportunity to the creative sector. This 2012 definition of the term "crowdsourcing" is the conclusion of a paper that reviewed over forty existing definitions:

> Crowdsourcing is a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task. The undertaking of the task, of variable complexity and modularity, and in which the crowd should participate bringing their work, money, knowledge and/or experience, always entails mutual benefit. (Estelles-Arolas and Gonzalez-Ladron-de-Guevara, 2012)

Crowdsourcing has had significant effects on creative enterprises. There have been positive effects: enabling businesses and organisations to engage and collaborate with their customers and audiences directly through social media enabled platforms to raise funds and co-ordinate volunteering. Crowdsourcing platforms such as OpenStreetMap, [45]TopCoder[46] and Kaggle[47] show different ways in which the Internet democratises the domain of expertise and creativity. However, there have also been negative effects: companies no longer being able to control stocks of knowledge; mediate learning; nor manage the complete creative process of its productions. Tasks that previously underpinned some of the business models of creative enterprises which depended on exploiting copyright, have been overturned. As peers share the knowledge with, and teach each other for mutually beneficial outcomes, the

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[45] http://www.openstreetmap.org , accessed 23.05.13.

[46] http://www.topcoder.com , accessed 23.05.13.

[47] http://www.kaggle.com , accessed 23.05.13.

financial outcomes of educational publishers' and information producers' business models are shrunk. Non-hierarchical creative spaces have opened up, that enable individuals and amateurs to become publishers and producers (Anderson, 2012).

Mobile computing and crowdsourcing - both impacts of technological and digital disruption since 1995 - have resulted in some significant socioeconomic challenges for the creative sector. For example, crowd-funding platforms now give more money to arts projects than did the American Government via National Endowment for the Arts in 2012[48]. They have also resulted in the traditional distribution and discovery mechanisms of the creative sector having their boundaries challenged. Customer/audience expectations of participation and collaboration supplant the traditional methods that creative enterprises had, of controlling access and interaction with content, assets, and experiences. This impact has left many creative and cultural organisations floundering, as they try to stop income being jeopardised.

3.3.4 Consumption: new experiences emerge

The more digitally developed traditional sub-sectors of the creative industries (broadcasting media, publishing, music, film) have harnessed technology development to try and stop income streams disappearing, and this has introduced a further impact. As broadcasting media companies try to overcome the challenges of disruptive digital technologies on traditional business models, they have created digital innovations in distribution channels, and have innovated new digital consumption methods, and engagement devices, which have in turn caused further turmoil to cultural industries. The introduction of some of the most elemental aspects of natural user interfaces (or NUIs), such as speech recognition for voice commands, and intuitive actions such as swiping, expanding, and shrinking of content on tablet and smartphone touch screens,

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[48] See Washing Post article "Yes Kickstarter raises more money for artists than the NEA" http://www.washingtonpost.com/blogs/wonkblog/wp/2013/07/07/yes-kickstarter-raises-more-money-for-artists-than-the-nea-heres-why-thats-not-really-surprising/ accessed 07.07.13.

has further engaged ever bigger markets for experiencing content on digital devices (Shneiderman, 2009). For example, connected TVs have enabled content, such as online digital video - previously interacted with through computer screens, cursors, mice, and keyboards at a desk - to migrate into the living room. Online content is viewable through the TV, and controllable via the devices used for navigating the TV. Mobile devices, especially those with NUI elements, have provided a compelling device through which to consume digital music, e-publishing, and increasingly, digital video.

Distribution channels and consumption devices changing because of convergence (of media, content, telecoms, software, IT, TV, mobile) means that content and experiences now have to work for connected multi-platforms. In the creative sector, convergence signifies a paradigm shift: content is no longer medium-specific, but flows across media channels, using the communications infrastructure, and end users' own devices. Convergence is forcing media channel and content owners in media corporations to open up programming to grass-roots participants, and create more of an ecology. Convergence creates multiple methods of selling content to consumers, and so begins to fight back against the file sharing currently threatening content businesses (Jenkins, 2008).

The International Telecommunication Union reported that mobile phone access to the Internet increased by over 2,000% after the launch of advanced smartphones such as the iPhone (people realised they could get content on-the-go without the need for wifi).[49] The hugely successful launch of the iPad suggested that if the experience associated with consuming content on that device is sufficiently enhanced, users will pay for content that is otherwise free on other platforms (Levine, 2011). This shows that the experience associated with content consumption determines how much it is consumed. Convergence will drive the content and experience consumption landscape:

[49] See key indicators on the International Telecommunication Union - http://www.itu.int/ITU-D/ict/statistics/at_glance/KeyTelecom.html

evidence of this can be seen from the glut of funds for research and development projects (e.g. the November 2012 £1.8m *Convergence in a Digital Landscape* Fund from the TSB). To benefit most from the impact of convergence, technologists, content creators, and distributors must collaborate to establish mutually beneficial models of working to ensure:

- sustainable economic models that do not depend upon freely available content; and
- that services and content work across different devices and environments to suit the demands and expectations of consumers.

Within the creative economy, new forms of social power have emerged: the crowds sharing messages, content, remixes, and spoofs on social networks have broader reach to a wider audience than do the original content creators using their existing traditional channels (Jenkins, 2008). This disrupts traditional marketing, as creative organisations seek to encourage their socially networked fans to spread word of a new show/programme/book, instead of spending on advertising via traditional channels. It also disrupts traditional commissioning processes, as audiences flock to (or ignore) content quickly, meaning that piloting content online and measuring reaction on social networks is considered more reliable, than depending on the commissioning editor's decision. Convergence of content channels with social networks has created efficiencies for the industry, as they risk making fewer unsuccessful pieces of content. The convergence of content channels and social networks has also created new "Long Tail" business opportunities for the media and film industries, as they sell existing content to niche markets (Anderson, 2009). Convergence of content, channels, social media is even more disruptive when the content is created by an amateur. Platform owners call this user-generated content (or UGC), and it might be entirely original, or may "mash-up" copyrighted material into a new adaptation, but it is made by a creative not formally a part of the profession. User-generated content removes all editorial power from commissioners, and puts their channels to use for someone else's reputational and financial gain (Jenkins, 2008).

The creative sector is challenged by convergence's power to inform the culture and rituals of how that content is consumed, and this is also changing the economic realities of the sector's offline businesses. Access to, and participation with, content changes, as the frontiers between creators and consumers crumble away with the development and application of participatory and engaging digital technologies (from blogs and wikis, to social media and instant messaging).

3.3.5 Content: changing forms, new forms, new audiences

Digitised content itself has become another impact and challenge demanding adaptation of the creative sector. Both traditional and new forms of content have become 'transmedia' - they are being accessed through a multi-channel, multi-device mix, that includes the physical, live, and real (European Commission, 2010). Transmedia as a form is disruptive to traditional forms of content though, such as live performance, which occurs at a single point in time in a specific space. The available research on what happens when that live performance is digitised is explored explicitly, but in just a few publications. Surveys on digital performance content have historically focussed explicitly upon the audience development potential, the benefits and impacts of digital developments on audiences (for example, OPERA America reviewed the impact of *The Metropolitan Opera Live in HD* programme - the report is entitled "Who attends, and why?")[50]. Perhaps the idea here is to convince the traditional arts, cultural and heritage sub-sectors of the opportunities (audience growth) rather than the threats (potential cannibalisation of audiences for live product). However, the cannibalisation of live audiences has not occurred. The National Endowment of the Arts study of US Arts Participation survey data compared patterns of live and electronic participation, and found:

> Arts participation through media does not appear to "replace" live arts attendance, personal arts performance, or arts creation. In fact, arts engagement through media is associated with higher rates of participation

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[50] http://www.operaamerica.org/content/research/Met%20HD%20Article.pdf, accessed 12.02.13.

in those activities, even after statistically controlling for demographic traits (National Endowment for the Arts, 2010).

Similarly, in the UK, *Beyond Live*, the research briefing prepared by Nesta, was an in-depth research study on the two *National Theatre Live* pilots that were simulcast to UK cinemas in 2010. *Phèdre* on 25th June and *All's Well That Ends Well* on 1st October. The research showed how the innovation of simultaneously broadcasting the live event in a theatre in London by satellite to cinemas around the UK, allowed the National Theatre (NT) to reach new audiences for theatre. The NT drew on established relationships between cinemas and their patrons all over the country (the shows sold out to a cinema demographic rather than to the NT's theatre-going demographic). It also confirmed the centrality of 'live' for the audience experience - both in the theatre and in cinemas. Cinema audiences reported higher levels of emotional engagement with the on screen version of the production, than did audiences at the theatre. Cinema audiences also claimed that they were more likely to visit the theatre in the future, suggesting positive impacts for the wider theatre sector around the country. There was an upbeat opinion that audience development potential for simulcasts would be significant (Bakhshi et al., 2010). By 2013, the number of English arts organisations live streaming was doubling year on year (from 8% to 15%), although the scale of organisation affected the ability of the organisation to undertake live streaming: "13 per cent of small organisations (annual revenue under £100,000) report that they simulcast/live stream performances compared with 32 per cent of large organisations". (MTM London, 2013a, p. 6)

A further Arts Council study, *Arts content online: assessing the potential,* commissioned in partnership with the BBC, conducted deeper research into the online content produced by cultural organisations. Most found it hard to quantify the amount of digital material they actually held. 60% of the content was described as long form (over five minutes), with 83% organisations creating artist interviews, and 75% recording performances. Only 13 of the organisations had rights clearance to 100% of their digital content - respondents generally felt that arts organisations struggle with rights issues, especially in relation to archived

content (Hutton, 2010). In terms of potential audience for presenting work online, the 2010 *Digital Audiences* report for Arts Council England reviewed a sample of 2000 English online adults. Headline findings reported that 53% had searched online for information about a live event, performer or artist; 16% had viewed clips of a performance; 8% had watched a performance or arts programme online; and 6% had created and uploaded "something artistic" in the last twelve months. Music as a genre showed the highest levels of online engagement, and those watching rich media clips of performances felt it a complement, not a substitute, to live performances (MTM London, 2010). These reports prove that digital participation in the arts complements rather than threatens live, in-venue participation: traditional and transmedia digital forms of content can sit alongside each other as part of a business model mix without cannibalising the other's market. Creative industries organisations' initial fears about digitising work have been partially allayed - the traditional market for the live event remains. Creative destruction does not behave as it should in the creative industries.

How cultural sub-sectors make sustainable money from digitised content and digitised assets though, is an issue still unresolved (Smith and Telang, 2012). One of the world's largest cultural industries digital project, Google's Cultural Institute,[51] and its art project, historic moments project, and world wonders project, does nothing to help set precedent. For example, considering the art project: the world's largest search and information gathering technology company has used its Street View Cameras to capture works of art in 385 of the world's greatest galleries in such high definition that viewers can see the work in the type of extraordinary detail that usually only art restorers would be able to see with their magnifying glasses. The historic moments project digitises important exhibitions, and the world wonders project uses Street View, and other online mapping technologies, to bring modern and ancient world heritage sites online. The research again indicates that seeing an art work online will prompt a visit to it in real life: Nicholas Serota, Director of The Tate Museums has said in an interview "every communications technology introduced so far—printing,

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[51] See https://www.google.com/culturalinstitute/home, last accessed 19.01.15.

photography, television, the Internet— has failed to stem the rising tide of visitors to museums". He goes on to assert that the art project might excite the online viewer to further interact with other art online (Proctor, 2010 -). However, with the world's cannon of high art in one place, will online art viewers search for the work on the cultural organisations' own websites anymore? The cultural organisations may have democratised the art works, making them available to anyone, anywhere rather than just in their archive: but they have also democratised their own business model. Online viewers are not going to bother searching out the work in the website of the gallery in which it is protected and up-kept, if the quality of the digital version there is inferior. This results in less traffic on the organisations' websites, and therefore less potential to sell advertising and sponsorship, which results in less funds to protect and upkeep the actual art work.

3.4 Conclusion

The AmbITion Approach began life in 2007 as a prototype change management and learning model to support sustainable change and adaptation, which sat at the heart of AmbITion programmes. The approach has developed through time: a first iteration of the original approach was refined with aspects of design principles, creative practices, and action learning methods, and a toolkit was published online in 2010. The specific digital challenge to the creative sector at that point was "getting digital" - keeping business going under a traditional analogue business model while managing the transition to new digitally enabled business models (European Commission, 2010, p. 4).

Another challenge was that the digital technologies emerging were also disrupting the traditional business models. Creation and production could no longer be controlled to ensure original creators and producers made money from their efforts. Traditionally used to being the guardians of quality and gatekeepers of control and access, creative organisations have faced rapid changes and loss of

control and revenue streams as digital developments. Internet piracy of content, and the demand for free content from an expectation built by digital content businesses creating their business models through ad revenues, made copyrights online difficult to monetise.

Customer/audience expectations of more open participation and collaboration with organisations supplanted the traditional methods that the creative sector had, of controlling access and interaction with content, assets and experiences. Distribution and discovery of content also fell outside of the creative sector's control. Mobile computing has significantly amplified the crowdsourcing of content. Whilst crowdsourcing has shown how the Internet democratises the domain of expertise and creativity, there have also been negative effects: companies no longer being able to control stocks of knowledge; mediate learning; nor manage the complete creative process of its productions.

Expectations of audiences around how they consumed content also changed as new digital devices brought content into different contexts. The arts, cultural, and heritage sectors' offer of traditional analogue/live products, experiences, and services was challenged by new digital versions being available in different contexts. Convergence of channels and devices created positive impacts, in terms of broadening access to the products, services, content, and experiences of the creative sector. However, the creative sector is challenged by convergence's power to inform the culture and rituals of how that content is consumed, and this is changing the economic realities of the sector's offline businesses.

Completely new digitally native 'transmedia' products, produced purposefully as "digital art" or "digital culture" created new competition for audience time and attention. Whilst the evidence so far shows that cannibalisation of live audiences has not occurred, cultural transmedia content is usually created by the cultural digirati - the creative sector organisations already doing well digitally. The owners of the digital channels and platforms for delivering transmedia cultural content are not the creative businesses, but IT and

telecoms companies. The supply and delivery chain for the creative content is taken out of the creative infrastructure, into digital infrastructure not owned or monetised by them.

The need for creative sector organisations to adapt and change, because of digital disruption, encroaches on all areas of business, and demands significant changes to business models, operations, core content production, and audience engagement.

The AmbITion Approach's early inclusion of design principles and practices and action learning methodologies, made explicit that change is ongoing in the organisations, as digital technologies continue to emerge and continue to disrupt. The empirical work of this study (see chapter 4, below) developed *The AmbITion Approach* further to help support creative sector adapt. The next chapter describes the empirical work undertaken to ensure *The AmbITion Approach* was fit for purpose in 2012, to be applied as a framework by creative organisations seeking to change in the face of digital disruption.

4. Empirical work

This study inquired into the effect of undertaking *The AmbITion Approach,* which seeks to develop change and adaptation in creative sector businesses, impacted by digital disruption. The study began in 2012, at the point where an existing approach and toolkit existed, see chapter 3 (3.1, above). This chapter considers the early empirical research work of the PhD study.

The empirical work discussed in the first section introduces the methodology of action research, specifically participatory action research (PAR) to *The AmbITion Approach* in 2012. Action research was considered suitable for a sector used to practice-based learning and change, and a sector experiencing a constant need to change, because of the demands disruptive technologies place on their businesses. PAR, the specific branch of action research applied, is a variety of research methods, techniques, and tools defined by their innovation. It is considered in depth. Coghlan and Rashford's change categories and definitions are also introduced to *The AmbITion Approach*, as a suitable classification mechanism to prove and validate change and learning.

The second section explores the testing of PAR research tools in a pilot study, undertaken in 2011-12. It enabled the iterative design and testing of the research tools to both enhance the PAR experience, and facilitate data collection.

Section three describes the early empirical work on embedding PAR research instruments into *The AmbITion Approach*, with which participant organisations engaged. The data gathering strategy and process via T*he AmbITion Approach*'s information system is discussed.

Section four discusses how the participant organisations were recruited to undertake *The AmbITion Approac*h and therefore be a part of the research project.

Section five defines the methodological approach to the data analysis, and explains why a mixed methods (quantitative and qualitative) approach was proposed for the analysis of a large volume of textual data. This section explains the benefits of grounded theory as a framework for qualitative analysis of data; and of utilising Computer Assisted Qualitative Data Analysis Software (CAQDAS) as a tool for data analysis.

4.1 Developing the methodological framework of *The AmbITion Approach*

This section explores the integration of action research into *The AmbITion Approach* in 2012. It was considered suitable for a sector used to practice-based learning, and a sector experiencing a constant need to change, because of the demands disruptive technologies placed on their businesses. Participatory action research is the specific branch of action research applied.

4.1.1 Action research introduced explicitly to *The AmbITion Approach*

In its original simplest form, as described by the founder of action research, Lewin, action research is a cyclical process of deliberately and continuously planning, taking action, and evaluation. Participants are in constant cycles of contextualising, constructing, planning, acting, observing, and reflecting (Lewin, 1946). Whilst the previous iteration of the AmbITion methodology was based on the Deming change cycle (Deming, 1993) and action learning (see 3.1, above) the move towards an action research philosophy changed the ideology, methodology, and epistemology of the approach. Deming's approach was designed for statistically controlled environments where total quality management was achievable. Although Deming's general framework of change - plan/act/observe/reflect - translates to the creative sector, the ideology (that statistical control could eliminate variation in a product) did not. With infinitely

variable product, the creative sector cannot change through statistical control, change must be bespoke.

Change, and change agency, in action research, is based on the idea that those local to the problem are best placed to solve it, and become emancipated by overcoming the problem. This idea originated with Freire (1921), who developed an approach to education that linked the identification of issues to positive action for change and development (Freire, 1970). Action research is a sequence of events comprising of iterative cycles of gathering data, feeding it back, jointly analysing the data, jointly planning action and implementing it, evaluating jointly, and so on. Coghlan and Brannick suggested that action research is especially appropriate for sectors where experiential learning and reflective practice are norms (Coghlan and Brannick, 2010). This is the case for the arts, cultural, and heritage sectors: where actions over time are reflected upon, and where good practice is sought and shared through collaborative and democratic learning platforms, such as associations and societies, umbrella bodies, unions, and councils. Action oriented research demands that research takes place concurrently whilst action is ongoing, with research and actions undertaken by the participants from the organisation. The research is *in* action, rather than *about* action. Shani and Pasmore (1985) define action research as: an emergent enquiry process in which applied behavioural science knowledge is integrated with existing organisational knowledge and applied to solve real organisational problems. It is simultaneously concerned with bringing about change in organisations, in developing self-help competencies in organisational members and adding to scientific knowledge (Shani and Pasmore, 1985, p. 439).

Action research uses a social science approach to study the resolution of important social or organisational issues (such as the impact of disruptive technologies on the creative sector), working together with those who experience the issues directly - the creative organisations (Lewin, 1946). The responsibility for theorising and solving issues does not rest solely with the researcher. Another general characteristic of action research is that it is collaborative - participants of the system being studied are actively engaged in the cyclical process. Participants

and the researcher are partners in undertaking a sequence of events - collaborative cycles of planning, acting and evaluating - actively engaging together in the quest for information and ideas, that might guide future actions. *The AmbITion Approach* was rewritten in 2012 to include the methods of action research: an approach to research and development that seeks to create action, and knowledge or theory about that action. The outcomes are twofold: an action and a research outcome (Coghlan and Brannick, 2010), (Pedler, 2005), (Reason and Bradbury, 2001), (Reason and Bradbury, 2008). The approach was aligned closely with the five main action research grounded phases - of auditing (or contextualising) diagnosing (or constructing), planning, acting, and reflecting (Pedler, 2005), (Coghlan and Brannick, 2010).

Action research is a broad field, and the specific approach and practice identified as being suitable for *The AmbITion Approach* was participatory action research (PAR). It addresses a key issue in scientific research: the difficulty (faced by researchers of all disciplines) of trying to contribute to change in complex organisational settings. Settings characterised by uncertainty, and the unknown (the situation of the creative sector because of the impact of disruptive, digital technologies). PAR can straightforwardly be defined thus:

- focussed on change
- context-specific
- emphasis on collaboration
- emphasis on democratic participation
- knowledge generated through collective efforts
- liberational (in that it builds confidence and capacity)

4.1.2 The context for participatory action research in an academic scientific study

PAR is a well-documented tradition of over 70 years. It began with the work of Lewin and the Tavistock Institute, as described in section 4.1.1, above. Participatory action research is an alternative to conventional or exact science (that anything scientific must be free of uncertainty, reliable, replicable, and

independent of values - the presumptions assumed by the terms positive science and conventional science). Its central position is that the division of means and ends in the field of knowledge has been caused by the "instrumental" views on methods to produce knowledge by positive science (Chevalier and Buckles, 2013). Critics of positivism question the split between theory/substance and technique/process, seeing it as a dangerous stance where the creation of knowledge is separate from life in society. Giddens highlighted reasons for why facts can be uncertain, and factors can be unknown. For example, uncertainties in economies, messiness of societies, and chaos in the environment of our world: bringing anomalies which question the main presumption of positive science - that it should be free from uncertainty (Giddens, 1999). PAR is an alternative to positivism's denial of human agency, promoting the grounding of knowledge in a critical, action-oriented understanding of social history and political economy. *The AmbITion Approach* developed, with PAR embedded, as a journey or pathway to theoretical and substantive knowledge: and its action-led processes, its inquiries, and its techniques, encourage reflective thinking and practice by the people undertaking the approach for their organisation. Process speaks to the journey rather than the destination, and the techniques of the process facilitate substantive knowledge around real phenomena (Chevalier and Buckles, 2013, pp. 1-2).

4.1.3 Participatory Action Research as an academic tradition

Participatory action research is a longstanding tradition of inquiry that includes collective fact-finding, analysis, and decision making. PAR involves egalitarian participation by a community, or members of an organisation, to transform some aspects of its situation or structures, through action and research (Coghlan and Brannick, 2010). PAR has a well-documented tradition of active-risk taking and experimentation in social reflectivity, backed up by evidential learning and reasoning through real action and experience, as Reason describes:

> communities of inquiry and action evolve and address questions and issues that are significant for those who participate as co-researchers. (Reason and Bradbury, 2008, p. 1).

PAR is about ensuring that rational communication and knowledge making is wedded to civil society and public life, so that it serves the needs of people and the values they hold, whilst reflecting and acting on the complex global factors that currently shape human interaction. PAR practitioners make effort to integrate three aspects: participation (life in society and democracy), action (engagement with experience and history), and research (soundness in thought and the growth of knowledge) (Chevalier and Buckles, 2013, p. 6&8). Figure 4.1.3.1 below is a Venn diagram, which visually describes the definition.

Figure 4.1.3.1 PAR Venn diagram by Chevaliers & Buckles (Chevalier and Buckles, 2013, p. 10)
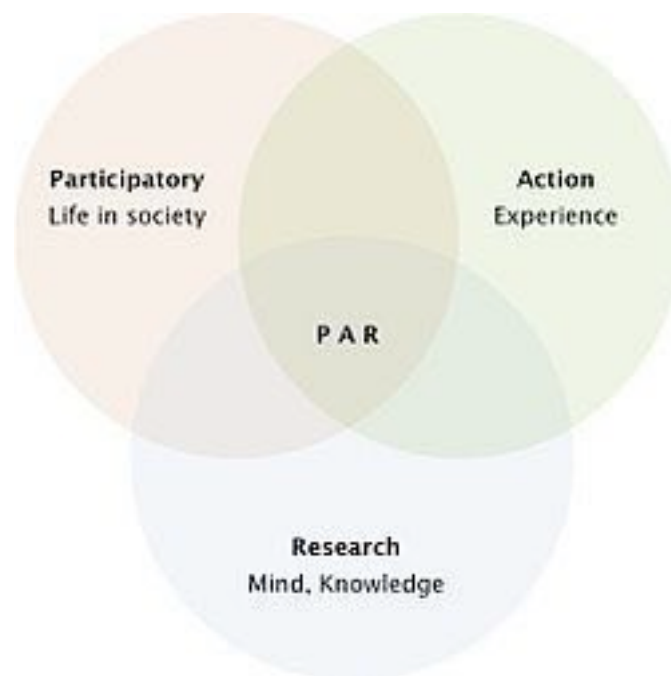
PAR is not a static body of ideas and methods, but there are consistent elements: action seamlessly unites with research, to affect change in the environments that people find themselves in (Chambers, 2008, p. 315). All practices of PAR agree that research and action must be done 'with' people and not 'on' or 'for' people (Chevalier and Buckles, 2008, p. 5). This aspiration could also be claimed as a broad vocation of the cultural sector. Some Nordic academics prefer to call PAR *Interactive Research*, emphasising the relationship between participants as equal,

highly participative, and a joint learning process (Nielsen and Svensson, 2006). There is a French tradition of psychosociology which is sometimes defined as participatory action research, and which focuses on issues around emotions and meanings, and borrows methods from clinical psychology and psychoanalysis and has been particularly appropriated by the healing sector (Michelot, 2008).

The Anglo-Saxon/European tradition of participatory action research, with which this study aligns, is more pragmatic, and focused on solving practical problems. The researcher is an active participant in action research, helping to create actionable knowledge at each of the steps, by reflecting on the organisations' reflections, and learning about the organisations' learning. It is this idea of meta learning through the inclusion of the researcher, that elevates action research above every day problem solving (Argyris, 2003). The form of knowledge that participatory action research tries to create is practical knowing - exactly what organisations facing crisis and change need.

4.1.4 Participatory action research in other fields

The legacy and evolution of participatory action research can be found in fields ranging from rural development and natural resource management (Castellanet and Jordan, 2002); educational leadership (Alana et al., 2008); healthcare (Koch and Kralik, 2006) and palliative care (Hockley et al., 2013); in the emerging fields of open politics and deliberative democracy (Brown and Gaventa, 2010); and in problem solving in the workplace, as already discussed above (Cantore and Cooperrider, 2013), (Lewin, 1946).

Within healthcare, Koch and Kralik positioned participatory action research as a vital, dynamic and relevant approach to move forward toward sustainable services that evoke human flourishing (Koch and Kralik, 2006, p. 27). It is a new researching practice in palliative care, perhaps reflecting the recent move to put the patient and the family at the centre of palliative care, but additionally bringing in the healthcare professionals as collaborators who work together with the patients and their families to deliver action for them, as well as a theoretical or learning out put for the heath and social care professionals (Hockley et al., 2013).

Within educational development, participatory research is seen as the next evolutionary stage to professional learning communities (in the UK, the "INSET" day is the context for this professional development for teachers), formalising the practice of teachers sharing new knowledge, reflections, and ideas together (Alana et al., 2008).

Participatory action research has left a significant mark in the fields of rural development and natural resource management, especially in the Southern hemisphere. PAR projects are particularly used for long-range conservation programmes, where researchers needed to deliver policy aspirations around resource management, but also practically work together with farmers and local residents to achieve sustainable practices (Castellanet and Jordan, 2002).

Open politics and deliberative democracy are PAR on a broader scale. Often supported by ICTs (information systems), and made possible through the open source movement putting pressure on public bodies to make openly available data, PAR-based projects can have impacts on civic action, national policies, and global discourses (Brown and Gaventa, 2010). For instance, citizens' juries/panels/councils are a mechanism of PAR that investigate and solve real scenario problems, which are promoted and organised by online social network platforms like opendemocracy.net.[52]

4.1.5 Challenges of participatory action research

The main challenge of PAR is also its main feature: that it is a ground-breaking alternative to mainstream, positive science. A critical concern is the problem-solving orientation of engaged inquiry. The worry is that by focussing on achieving a pragmatic result, new (unexpected) forms of understanding and knowledge may be missed. Enquiries do not start from the point of a grand theory, questions asked are not necessarily decided by the researcher, and another concern is that this is neither scholarly or scientific. However, the scientific logic

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[52] http://www.opendemocracy.net, last accessed 18.09.13.

of developing theory, forming and testing hypotheses, gathering measurable data and interpreting the results plays a central role in the action research plan/act/evaluate method. Research methods are more qualitative than quantitative, but there is much literature to prove quantitative methods as rigorous and theoretically informed (McNiff and Whitehead, 2009).

Baskerville states that "action research 'looks like' consulting" (Baskerville, 1999). This is because it intentionally strives to achieve goals for the research subjects, and consultants are usually involved in the problem setting, and payment is given for their involvement in the problem solving. Participatory action researchers are often accused of being opportunistic in their research programmes (Baskerville, 1999). However, in the realm of action research, scholars cannot choose the problem they wish to investigate - the wider context introduces the problem. Greenwood, Whyte and Haravy (1993) however celebrate this coming together of professional facilitator with members of an organisation:

> Participatory action research is a form of action research in which professional social researchers operate as full collaborators with members of organisations in studying and transforming those organisations. It is an ongoing organisational learning process, a research approach that emphasises co-learning, participation, and organisational transformation (Greenwood et al., 1993, p. 175).

Consultants/facilitators were used to work with organisations as co-researchers on change journeys, trained in *The AmbITion Approach*. They were introduced to the participatory action research ethos. They used the research tools in *The AmbITion Approach* toolkit to guide the PAR process. The participatory action research framework diminished the consultants' ability to control the problem defining, the process, and outcomes of the research: problems were recognised and solved collaboratively. A result was not just change implemented, but a problem solved. It is proven evidence of learning, and living knowledge towards how to achieve adaptability in an organisation; and increased capability, confidence, and capacity in its people around digital disruption. Like positivist scientists, *The*

AmbITion Approach consultants or facilitators were paid, but not on a basis of an outcome.

In the case of this study, the wider problem that is to be addressed is the impact of disruptive technologies on the creative sector. The opportunity grasped by this research study was the AmbITion Scotland programme 2012-14, where participant organisations committed to undertake a PAR based approach to changing their organisations to be more adaptive to digital disruption. The author led that 2012-14 programme, which allowed a longitudinal participatory action research programme to be the subject of academic enquiry - this PhD study. It has turned practitioners (the staff of creative organisations, and facilitators/consultants) into fellow researchers. This can only diversify the suggestions that emerge for how *The AmbITion Approach* can be improved as a framework.

4.1.6 Positionality and bias within PAR

That action research is best done in collaboration with others has already been discussed, above. Historically, social scientists have argued that participatory forms of action research are merely a variant of applied research, but with the differences emerging according to the degree to which participants are included (Spjelkavik, 1999). Participatory action research is highly collaborative: but that raises issues of positionality - the practitioner researcher is an insider, at the centre of research. The researcher has also designed and controlled the inquiry as a computer and social scientist, designing toolkits and research instruments, and implementing them in the information system. The author/researcher also participated in the research, as a creative industries professional, a consultant with extensive and first-hand knowledge of the setting. The position of the author/researcher could perhaps be described as insider practitioner, or a practitioner researcher (Herr and Anderson, 2005). It could be argued that the researcher is a reflective practitioner - someone undertaking an inquisitive research study to "learn to learn" about their own practice to become a better practitioner (Schon, 1983). The writing up of this type of insider account begins to build a knowledge base that can be shared with:

- other practitioners

- the research community (who might be interested in the actions and methods of practitioners).

As already discussed, the Anglo-Saxon tradition of participatory action research, with which this study aligns, is more pragmatic and focused on solving practical problems. The researcher was an active participant in action research, helping to create actionable knowledge at each of the steps by reflecting on the organisations' reflections, and learning about the organisations' learning. The emphasis on careful observation makes the approach scientific, but it is an expression of science that assumes reflectivity and experimentation, meaning that humans and their worldviews influence outcomes. PAR focuses on knowledge making that reflects complex global factors, but that serves the needs of people, their civic societies, their public life, and serves the values these hold (Chevalier and Buckles, 2013, p. 6&8).

AmbITion programmes were the professional practice (professional livelihood) of the author/reseacher. However, rather than conduct a purely self-reflective action research project as a practitioner researcher, which would be written up in first person, this dissertation has been written in the traditional stylistic method of third person narrative. This is because the research uses some applied research methods, therefore data has been gathered upon which the researcher has borne no influence. There is distance, in that there is no direct influence on the data gathered, (the words, thoughts, and rich media case study stories of the participant organisations). There is intimacy though, in that the tools that collect the data have been designed by the researcher to enhance a change process - also designed by the researcher. The positionality of the researcher is actually fluid and multiple, with the researcher having varying roles and statuses. The benefit is many different viewpoints, which should elicit complex understandings of the research questions and democratically discovered knowledge, without blindspots. The PAR influenced framework of *The AmbITion Approach* involves outsiders collaborating with insiders from the point of problem definition. This kind of reciprocal collaboration is possible if the outsider has gained respect through

showing respect and listening, argued an action researcher who had spent many years in organisational contexts engaging in action research:

> As the social scientist gains an understanding of the organisational culture and work systems, he or she will find ways of contributing that are appreciated by the technical specialists. This will pave the way for establishing the full partnerships represented by PAR. (Whyte, 1991, p. 240)

All practices of PAR agree that research and action must be done 'with' people and not 'on' or 'for' people (Chevalier and Buckles, 2008, p. 5). *The AmbITion Approach*'s set-up of consultant/facilitators working collaboratively with an organisation, through a participatory action research cycle, provides a highly suitable methodological framework for organisations facing problems they must solve with their own teams, resources, and ideas. Obviously, any actor in a research environment, including *AmbITion Approach* facilitators, has their own subjectivity and bias. However, they were all recruited, including the researcher of this enquiry, through a procurement process that sought evidence of change management and organisation development skills, as well as experience of the arts, culture, and heritage sector and knowledge of digital opportunities. (See Appendix 13 for the brief put out to tender). The facilitators were all also professional change management consultants, used to parking their bias, and raising any conflicts of interest. With the positionality and bias of the author/researcher, and the others acting as facilitators discussed, ethical issues around insider practitioner research have been examined.

Other stakeholders in the community of this project have looked for bias. Early on, independent academic researchers applied an ethnographic approach of observation (Leitner and Wilson, 2009) to check whether organisations were being driven by their own agendas, not those of facilitators. Later, evaluation consultants reporting to Creative Scotland, the Scottish AmbITion programmes' funder, applied a qualitative and quantitative study approach, through ongoing questionnaires and focus groups with participants (Culture Sparks, 2011). This provided the opportunity to check the validity of this enquiry (where explicit

intervention has been made by the researcher), against a more traditional social science approach, where no intervention was made by the researcher, only independent observations. The cross-check mechanism with external evaluation will also be applied after the final studies have been undertaken, to allow this inquiry to make generalisable claims (see 7.3 and 7.4, below).

4.1.7 Participatory action research for change and organisational development

PAR research must be done with people (not on them, or for them) and PAR suits studies and situations looking at change, so it is suitable framework for change processes and organisational development. PAR is a longstanding tradition of inquiry used for organisational development. PAR enables a participative, or shared, engaged enquiry into how forces for change are impacting the organisation, and what options there are for their confrontation. The outcome of discovering the need for change is to begin to define what kind of change is required. PAR has been a recurring theme in the broad church of literature and practice known as organisational development (or OD). Kurt Lewin's original work in organisational studies not only coined the term "action research", but also introduced the notion of integrating theoretical and practical study and applying it to the "problems of real life" (Lewin, 1946). This theory building, within practical grounding, became integral to the practice of organisational development (Burke, 2008). Lewin's work was based on a formula - $B=f(P, E)$ - which has become a founding principle in both social psychology and organisational development (OD): human behaviour and performance at work (B) is a function of person-centred psychology (P) and its environment (E) (Lewin, 1936).

OD's principal goal is to enhance an organisation's performance and viability with a consultant, change agent, or catalyst, that helps the organisation define and solve its own problems. The process includes some form of analysis, combined with active learning or training sessions. With OD, all activities are problem-based, action-orientated, and client-centred (Cummings, 2008). The Lewinian influenced OD formulations of action research highlight the interpersonal and

social aspects of an organisation adapting to wider advances and changes in industry/society/technology, and aspects of them all come together to shape participatory action research. PAR differs from OD when used in the workplace. With PAR, the scope of the research is explicitly extended to include the expertise of the professionals who already have a nuanced understanding of the organisation and its challenges - the people of the organisation. The researcher therefore does need extensive expertise and depth of understanding of the context, and is considered a "co-researcher" (Elden and Chisholm, 1993).

PAR is therefore a specifically suitable methodological addition to the framework of *The AmbITion Approach*, because it recognises the researcher (and the research tools) as a part of the enquiry and development, as well as the actively engaged organisation. Both parties (staff and facilitator/consultant/"co-researcher) act to shape the research project (in this case, the digital development journey of a creative organisation). Organisations undertaking T*he AmbITion Approach*, collaborate with their AmbITion facilitators (or consultants). As a philosophy, methodology, and research paradigm, PAR has a comfortable fit with the creative sector. It has aspects common to the sector: it is collaborative and practical, with a firm orientation to society and the common good. Like any arts, cultural, or creative experience, participatory action research co-creates meaning.

4.1.8 Ontological and epistemological perspectives, and the validity and quality of PAR

PAR has been used in across many fields of research - perhaps because it makes sense of the world through efforts to transform it, as opposed to simply studying human behaviour or people's views about reality. It is an appropriate methodology to apply in the workplace of the creative sector because it seeks to propose the application of reason and problem solving on a local scale as an approach to organisational development. PAR as methodology has been justified, but the ontological and epistemological perspectives and assumptions of the author of this thesis must be made explicit. Different epistemological and ontological perspectives encourage different types of reflexivity. Here, reflexivity

through PAR is to facilitate change, so it needs to be guided by principles of a commitment to change, and democratic engagement. Reflexive knowledge concerns a vision of what ought to be, and what is right and wrong, and is established though the process of consciousness-raising. This is what happens when a researcher (outsider) comes together with an organisation's team (insiders) to collaboratively work (insider-outsider) on the route to change. The interests of the researcher and the team are exposed, and the researcher is an integral part of the research process, not separate from it (Reason and Bradbury, 2008). Therefore, the ontological perspective is subjectivist – the nature of the world, the social reality and worldview, what is taken as reality, is an output of subjective, interpretive human cognitive processes. The epistemological approach, the theory of knowledge, or how we seek to know is also subjectivist. PAR explicitly recognises the insider's perspective and situation. Rather than knowledge being a solid body of objective reality it is a subjective experience of reality (Checkland, 1972).

This does not make the ontological or epistemological approaches any less valid, and notions of quality and validity criteria for action research have been debated since the 1980s. The crux of the matter is whether validity only applies to positivistic traditions, and should be about seeking truth, value, or internal validity, demonstrating cause and effect in isolation. However, a practitioner (Herr) and academic (Anderson) worked together on an action research project; and then worked together when Herr became an academic. They constructed validity criteria linked to the goals of action research, which also recognised the impact of external validity - how generalisable or transferable inferences from the data could be applied to other contexts (Herr and Anderson, 2005). First, they defined the goals of action research, as:

- generation of new knowledge
- achievement of action oriented outcomes
- the education of both the researcher/facilitator and participants
- results relevant to local setting
- a sound and appropriate research methodology

These goals were then given quality and validity criteria, as figure 4.1.8.1 below shows:

Figure 4.1.8.1 - Goals of action research given quality and validity criteria

Anderson & Herr's Goals of Action Research and Validity Criteria (2005)	
Goals of Action Research	**Quality/Validity criteria**
Generation of new knowledge	Dialogic and process validity
Achievement of action-oriented outcomes	Outcome validity
The education of both researcher and participants	Catalytic validity
Results relevant to local setting	Democratic validity
A sound and appropriate research methodology	Process validity

The validity criteria seek to reinstate the interdependence of theory/substance and technique/process back into science, something that was called for by Gorz who argued for the self-limitation of science, for science to reflect upon itself and refuse to give itself immunity from self-examination and experimentation (Gorz, 2008). Although validity could be argued as a positivistic term describing theory-driven knowledge (Cambell and Stanley, 1963); the influence of participatory action research methods has created a new set of validity criteria, which depart from the current validity criteria for both quantitative and qualitative approaches to research. PAR brings both the insider and outsider perspectives into the

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collaborative research - the tacit knowledge of the "experience-near", and the truth of the outside eye of the consultant/facilitator (Herr and Anderson, 2005, p. 29). Participatory action research in organisations, at organisational level, means that the research considers the organisation as a wider entity, or open system. Katz and Kahn suggested that organisations have a dynamic two-way relationship with their external environments: affected by and affecting customers, stakeholders, competitors, the wider sector and wider society. This has been well established in organisational theory (Katz and Kahn, 1978). PAR is an expression of science that assumes reflectivity and experimentation, meaning that humans, and their world views, influence outcomes. It is practice-led, rather than practice-based, and contrasts with traditional scientific research where participants are objects of the study, hence the subjectivist ontological and epistemological perspectives.

4.1.9 First, second, and third order change: a suitable classification mechanism to prove and validate change and learning

Change theory is a theoretical framework that also defines practical learning outputs, otherwise known as actions. Change theory first emerged when Lewin (1946) set down the model that the change process had three stages:

1. Being motivated to change
2. Changing
3. Making change survive and work (Lewin, 1946)

Organisational change programmes are broad in their definition, with an extensive literature (organisational development, organisational learning, organisational consultation). Mitki, Shani and Stjernberg (2000) cluster change programmes into three types - limited, focused and holistic:

- Limited change programmes address specific problems (e.g. team building);
- Focused change programmes identify a few less tangible key aspects (e.g. organisational culture); and

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- Holistic change programmes are aimed to address all or most aspects of the organisation (Mitki et al., 2000, p. 779).

The AmbITion Approach, applied in a programme, can be defined by Mitki's types as an holistic change programme. This is because it aims to simultaneously address all areas of an organisation, through the consideration of the possibilities and implications of digital opportunities.

As well as types of change programmes, there is also an extensive literature of different approaches to change. Buono and Kerber (2008) describe three approaches:

- Directed change, where the leadership directs and commands tightly defined goals;
- Planned change, where a roadmap is devised to reach a clear goal and vision of the future; and
- Guiding change, where leadership points the way and keeps watch over a process of loosely defined direction (Buono and Kerber, 2008, p. 117).

The AmbITion Approach is planned change, as it allows for the values and activities of participation, which are important for holistic change to be achieved in an organisation (everyone, every department, needs to be involved). That organisations undertaking *The AmbITion Approach* would experience an holistic planned change programme is useful to define. However, when convincing an organisation to undertake a journey of change, they want to know what their investment in time and resources will result in. Defining what extent of change and development could be achieved by undertaking the approach would also need to be defined. Coghlan and Rashford built on Lewin's original change theory and identified first, second and third order change categories and definitions (Coghlan and Rashford, 2006), as figure 4.1.9.1 below shows:

Figure 4.1.9.1 - Coghlan & Rashford's change categories

Type of change	Definition	Example evidence of change and learning (themes)
First order	Specific change occurs within existing ways of thinking.	Improvements in products or services.
Second order	Change requires lateral thinking and questioning of core assumptions.	System-wide change in ways of thinking and acting - can lead to new business, operational models
Third order	Organisation learns how to question own assumptions and points of view, and develop and implement new ones	Organisational transformation

Coghlan and Rashford's change categories enable the description of the extent to which organisations developed: whether they experienced first order (change), second order (adaptation) or third order (transformation) change. Action, the level of change achieved, can be described by Coghlan and Rashford's definitions, and these have been introduced to *The AmbITion Approach* as a suitable classification mechanism to prove and validate first (change), second (adaptation) or third (transformation) order change. The type of change, as defined and categorised by Coghlan and Rashford (2006), therefore, a contribution of the thesis is to enhance the original quality and validity criteria of Herr and Anderson, to reference more than just a research output. An action output has also been added, cross-referenced against Anderson and Herr's *Goals of Action Research and Validity Criteria*. The theoretical criteria for quality and validity are also given action based outcomes (evidence of first, second, or third order change), resulting in a very robust validity framework, created for this study. The action output in the new action research quality and validity framework is the definition of the type of change achieved through the actions, as figure 4.9.1.2 demonstrates:

Figure 4.9.1.2 - Coghlan and Rashford's change categories, cross-referenced against Anderson and Herr's Goals of Action Research and Validity Criteria

Anderson & Herr's Goals of Action Research and Validity Criteria (2005)		Coghlan & Rashford's
Goals of Action Research	**Quality/Validity criteria**	**Type of change achieved (2006)**
Generation of new knowledge	Dialogic and process validity	Third order
Achievement of action-oriented outcomes	Outcome validity	First order
The education of both researcher and participants	Catalytic validity	Second order
Results relevant to local setting	Democratic validity	First order
A sound and appropriate research methodology	Process validity	Third order

The definitions of level of change achieved, and the evidence required for this, as set out clearly by Coghlan and Rashford, has been introduced to *The AmbITion Approach*, as a suitable classification mechanism to prove and validate change and learning (Coghlan and Rashford, 2006). This is a new addition to the framework, to prove and validate change through action research, and is a contribution to knowledge that will be tested practically through being applied to the results of this study (see 7.2, below).

4.1.10 Participatory action research tools and information systems

The interdisciplinary field of information systems (IS - see section 2.3.4, above) is a discipline that considers the impacts of IT, or digital developments, in practical contexts. Baskerville and Wood-Harper (1996) championed action research as a

suitable approach for the IS discipline, as it generates knowing in practice as well as theoretical knowledge, created through interventions collaboratively agreed between researcher and organisation (Baskerville and Wood-Harper, 1996).

The methods and tools of PAR have been particularly suited to digitisation, making them very innovative. The tools and techniques of PAR research are a variety of methods. Some of the commonest include:

- surveys;
- participant observation;
- mapping;
- diagramming;
- interviews; and
- group work/discussions

It is useful at the beginning of a change process to gather information about why change is needed, and what a desired future might look like, before getting into the details of what might be done and taking the action to do it. Methods and tools are used to gather data about the context/situation/problem that needs changed in participatory action research (PAR).

> Methods and technology are skilful means to interact with others and the world we live in. Sound ones embed ends in means (Chevalier and Buckles, 2013, p. 41).

Innovation in method is a feature of PAR. For tools and techniques to come alive, argues Chevalier, ends must be embedded in skilful means - doing the right thing at the right moment in the right way, seizing the moment to bring out learnings and a shift in understanding and action (Chevalier and Buckles, 2013).

Innovative methods currently exist in the field. Photovoice, also known as Participatory Photography, was used in community development, combining photography with social action from grassroots groups. For example, experienced PAR researcher Alice McIntyre (2008) provided instamatic cameras to a group in

Belfast, and asked them to tell a visual story (photostory) of their daily lives over a 9 month period (McIntyre, 2007).

Another example of an innovative PAR method is Insightshare.org[53], which uses participatory video (where a group creates their own film, rather than a crew creating a film about them, which would be defined as documentary). This methodology has been utilised for many PAR projects across the world, and its founders Clive Robertson and Jackie Shaw, have authored books and guides for interested researchers and facilitators (Robertson and Shaw, 1997). *The AmbITion Approach* similarly encourages the growth of confidence in video making, or podcast or story creation, by making the rich media case studies (created by the group as their own story and reflections) a part of the process.

Participatory action research in organisations, at organisational level means that the research considers the organisation as a wider entity, or open system. Katz and Kahn suggested that organisations have a dynamic two-way relationship with their external environments: affected by and affecting customers, stakeholders, competitors, the wider sector and wider society. This has been well established in organisational theory for a long time (Katz and Kahn, 1978). Organisations are also involved in interorganisational work (or networking). These networks devise collaborative ways of planning and taking action (Burns, 2007), and feedback on each other's actions. Organisations are part of ecologies or systems that contain sequences and patterns of interaction and feedback loops (Senge, 1990).

The information system/online toolkit of *The AmbITion Approach* includes an online network for individual creative sector professionals - see figure 4.1.10.1, below. The individuals highlighted in the screenshot are those who have recently used the network:

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[53] See http://www.insightshare.org , last accessed 20.09.13.

Figure 4.1.10.1: getambition.com online network for creative sector professionals
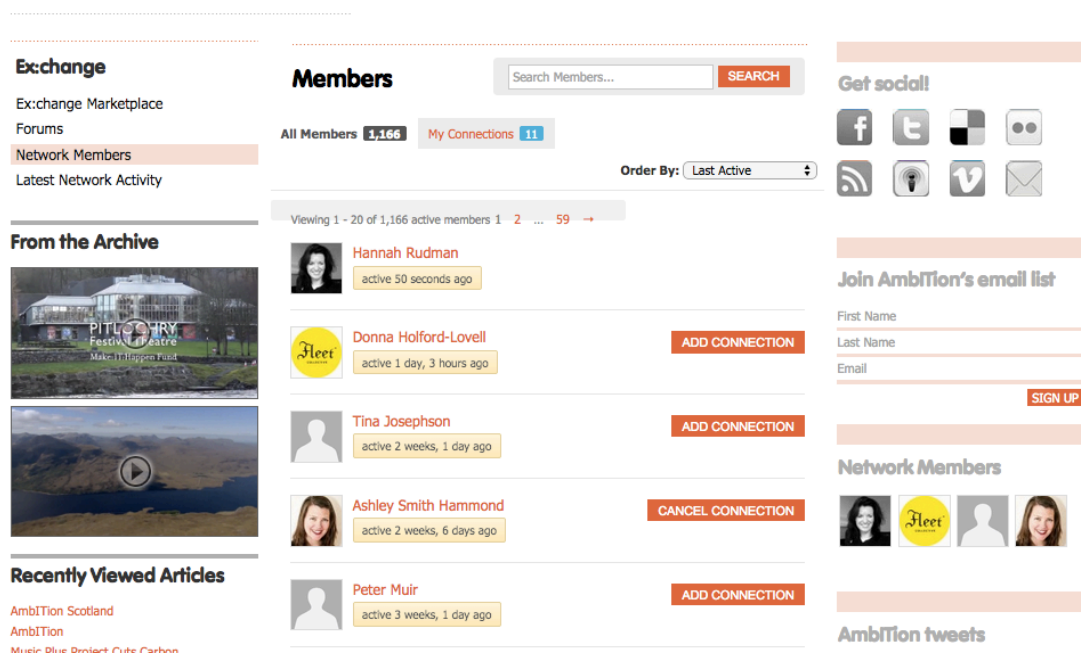
The information system also includes an ex:change (a marketplace for organisations and their ideas), see figure 4.1.10.2 below for the first page listing organisations beginning with 'A'. The exchange could be searched by a number of filters that can be seen in the screenshot:

Figure 4.1.10.2: getambition.com ex:change - a marketplace for organisations

4.1.11 A brief history of the development of action and research tools, within the context of the programmes

As *The AmbITion Approach* developed, so did the action and research tools within it. They were iteratively developed, to act as both a progress guide through the process for organisations, and as research instruments enabling data collection for the study. Figure 4.1.11.1 below, gives an overview of the tools added through time:

Figure 4.1.11.1 An overview of the action and research tools added into *The AmbITion Approach* through time

Programme	2007-09	2009-11	2012-13
Approach overview	Preliminary diagnostic audit Business case, workplan & contract Supported Implementation Evaluation	Audit Diagnostic Business Case Development Managed Implementation Reflection & Evaluation	Audit (plan/think/discover) Diagnostic (plan/think/discover-define) Develop Business Case (do/act/define develop) Implementation (do/act/deliver) Continuous reflection (check/reflect/deliver-discover
Tools included	Application documentation Paid for consultancy support for business case development and implementation Some pro formas distributed Online network introduced Case studies produced by AmbITion team	As 2007-09 PLUS: Online & downloadable *AmbITion Approach* toolkit for organisations & consultants including more pro formas & planning documents. Online network enhanced with learning resources	As 2009-11 PLUS: Updated toolkit formalising action learning approach & adding design thinking tools & Business Model Canvas Make IT Happen Fund administered by AmbITion & run through simple online forms Case studies created by organisations Reflectionnaires

A number of new tools were introduced in 2012. These were piloted first, in a smaller study, which acted as a test bed for gathering feedback about their usability and efficacy.

4.2 Pilot Study: The Federation of Scottish Theatre's Digital Action Learning Project tests the research tools

A pilot study, *The Federation of Scottish Theatre's (FST) Digital Action Learning Project, 2011-12,* enabled the iterative design and testing of the research tools to both enhance the PAR experience, and facilitate data collection. (See Appendix 10 for an explanation of the activity and results of the FST project).

4.2.1 A test-bed for the data gathering research tools of the main enquiry

This project, undertaken over 2011-12, was the context in which the piloting took place, of the research tools and data collection methods to be used in the main studies of this doctoral research. With just five organisations on the pilot project, only a few examples of each of the tools in practice were achieved, but feedback on the efficacy and usability of the tools was easy to gather. It acted as an action research cycle on the design of the research tools for the main study. Data sources for the doctoral research study that were tested in the pilot study included: business cases, textual and rich media case studies, reflectionnaires, and optionally, Osterwalder & Pigneur's business model canvas (Osterwalder and Pigneur, 2010).

4.2.2 Business cases

For the pilot project, applicants were asked to answer three questions (what, how and why) about the digital development they wanted to pursue, in their own words. Figure 4.2.2.1 below shows a screengrab of the relevant section of an email newsletter announcing the application process, which was sent out to the Federation of Scottish Theatre members.

Figure 4.2.2.1: Screengrab of e-newsletter announcing the application process

To Apply to be a Part of the Network:

Please answer the following 3 questions, each in 200 words or less:

- What is your digital content development/innovation? (please describe the technologies you hope to use)
- How do you plan to realise, promote and (if appropriate) monetise it? (please describe the production process, marketing and monetisation strategy briefly)
- Why is your development/innovation important to share with the wider sector? (what's the artistic, audience, organisational or business model development?)

Please send your responses by email to digital@scottishtheatre.org by 5pm on 6th June 2011.

The short answers required to the questions meant that respondees had to order their thinking in a concise way, to meet the technical requirement of answering the question in 200 words or less; and in a justified and engaging way to beat the efforts of other applicants. This created the business case - in their own minds as

they did that initial thinking and text drafting, and provided it to the project team for analysis. There were no queries about the application method; and no applications where the criteria were not met, nor the questions answered. There were seven applications in total, and five were chosen to participate by the Federation of Scottish Theatre.

4.2.3 Business model canvasses

Only one organisation opted to complete the business model canvas - a performing arts organisation called Cryptic. When asked to complete the canvas internally, the organisation struggled to find the time to undertake the exercise, and staff got quickly stuck, as they were too close to their own subject matter, and so could not ask themselves objective questions. Working through the canvas was going to require external facilitation. In the end, staff booked a half day "away day", and invited an external facilitator; a member of their board; and a technology partner to also participate. Inviting guests, and protecting the time allowed the staff of the organisation to treat the work on the canvas creatively and with open minds. As a facilitated session, ground rules and parameters were set, thus levelling the hierarchy of the staff team in that session, to ensure that all voices would be heard with an equanimity of influence. Concise definitions and descriptions were created for all sections of the canvas, developing an overview of the organisation's business, in an easy to comprehend visual presentation as figure 4.2.3.1 shows, below:

Figure 4.2.3.1: Completed Business Model Canvas

Key Partnerships	Activities	Value Proposition/Offer	Customer Relationships	Customer Segments
• David & Ludometrics • Creative Scotland • CCA & Tramway • Traverse • Cryptic Associates/Artists • Audiences via Crowd Funding? • Board • Audience 'Cryptic Angels' • Ad hoc ecology of other businesses • Sponsors	• Creating productions & Co-productions • Cryptic Associates • Platform/showcasing • Talent Scouting • Sharing best practice **Resources** • Content/assets • Alumni of Associates • Cryptic's 'methodology' • Contacts Network • Cathie's Leadership/A&D	• Quality • Engaging • Support the gap • New Work • Mentoring/nurturing • Professional Development • Trend Setters • International • Ambassadorial • Interdisciplinary • Trusted taste and style	• Cryptic Nights loyal audience members • Cryptic Core • Festivals & promoters • Emerging Artists **Channels/Distribution** • Cryptic Nights • Live events • Content Licensing • Facebook/Twitter • CCA venue • I-Phone app • Cryptic Treats	• 18-30 years arts attenders/students • Urban Sophisticates (serendipity – ad hoc – plan with i-Phone) • Creative economy professionals • Culture Vultures (who plan with paper and are selective)

Cryptic's staff team fed back that they had valued the opportunity to complete the business model canvas. Although the work was not strictly focussed on digital developments, having a simple overview of the business allowed them to clearly see where digital product, channels and services could support their mission and vision:

> Through describing Cryptic's business via the methodology the canvas encourages, it became clear that Cryptic had developed good digital assets (there is exploitable IP in the methodologies and products developed); strong relationships with key delivery partners (Ludometrics); had succeeded in building digital resources; and had new understanding of how to produce digital content and through it build audiences digitally. (From Cryptic's case study[54]).

4.2.4 Reflectionnaires

Reflectionnaires were devised, to make the task of completing a questionnaire about capability, capacity, and learnings seem more attractive to the cohort. Calling it a reflectionnaire, and making most of the open text response fields, was a design decision made to empower the writer to write as much or little, in their own voice, about their own experiences of the digital development projects (a questionnaire merely makes a request for "information" about their learnings and experiences through stock questions directing responses). The reflectionnaire specifically asked for respondents to comment on failures and what did not work, as well as what did - the research questions sought to elicit impressions and perceptions. The reflectionnaire was hosted and completed online via surveymonkey.com, and the reflective questions and a selection of responses can be viewed in Appendix 8. The open-ended questions elicited very personalised, entirely subjective responses, with most respondents writing over 250 words per response. Several informants reflected in the group meetings that the reflectionnaire provided a welcome opportunity for reflection that was not usually feasible in their busy work schedules. Selections from the different responses,

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[54] http://www.scribd.com/doc/101628382/Cryptic-Ludometrics-Case-Study-in-collaboration

shown in Appendix 8, confirm lengthy responses written in first person reflective style.

4.2.5 Written and rich media case studies

Case studies were written up in order to share the learning more widely of each organisation. These documents were written up by following the completion of reflectionnaires. Each case study included a background section explaining the organisation's needs and aspirations; an overview of the process of the project and the results; and then a summary of learnings and recommendations. If the organisation was further developing the project, then the case study ended with a summary of future plans. The first draft produced was shown to the informants for comments, corrections and additional input, which was incorporated. Sign off of final copy and the right to publish it rested with the organisation. Only macrobert requested their case study to be shared only with the Federation of Scottish Theatre membership, and not publicly. Appendix 9 shows an example of Dundee Rep's[55] and Cryptic's[56] case studies, as screenshots of how they are presented online. With the exception of Cryptic, all participants additionally completed rich media case studies, by creating a live presentation, which was videoed [57]for wider sharing and archive (staff changes and lack of capacity at Cryptic precluded them being able to create a rich media case study). Screenshots to show how this is presented online are in Appendix 9. The rich media case studies were crafted by the organisations themselves, usually as PowerPoint slides to which they spoke. The organisations were set the following boundaries:

- 8 slides only, mainly visual materials
- 5 minutes only
- Answer the questions what, why, how, what benefits and what implications?

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[55]   http://www.scribd.com/doc/102170854/Dundee-Rep-collaborating-with-cultural-organisations-to-launch-a-joint-digital-service-platform-or-channel-a-case-study

[56] http://www.scribd.com/doc/101628382/Cryptic-Ludometrics-Case-Study-in-collaboration

[57] Available for viewing at http://getambition.com/2012/09/digital-action-concludes

The presentations showed critical reflection, and highlighted the main issues that affected the actions, as well as the lessons learnt and the benefits that the organisation was already realising, or hoped to realise, from the digital development.[58]

4.2.6 Uptake of the research tools, and their usefulness for sharing practice and knowledge

The following data in figure 4.2.6.1, below, shows the broad uptake of the research tools. The uptake levels and the quality of the documentation, proved the viability and usability of the tools as data collection methods for the main study.

Figure 4.2.6.1: Research tools taken up in the Federation of Scottish Theatre Digital Action Research Project

Federation Scottish Theatre Digital Action Research Project	Application	Video Case Study	Written Case Study
Stellar Quines	1	1	1
Dundee Rep	1	1	1
macrobert	1	1	1
Cryptic	1		1
Grid Iron	1	1	1
	5	**4**	**5**

Although only a small test group of five organisations, the Federation of Scottish Theatre's Digital Action Learning Project was important as a pilot: it was small and intimate enough to gather reflexive feedback on the research tools. The main issues that arose in relation to the research tools were the:

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[58] Available for viewing at http://getambition.com/2012/09/digital-action-concludes

- time implications of undertaking a Business Model Canvas exercise, and the confidentiality required by the organisation of the document could preclude it from being undertaken in the first place, and later being shared; and

- rich media case studies in slide presentation format required live presentation by the organisation, and this would not a feasible way to gather this deeply reflective material for the well over 25 organisations that would be engaged in the main study of AmbITion 2012-14.

Business cases were formed by asking organisations the simple questions: what, why and how. Giving them technical constraints of keeping answers short (below 200 words each) did ensure that the quality of written argument was high, and clearly justified the case.

Business model canvasses were completed, but only by one organisation. It was perceived as highly useful (it was sent to the board of directors, and has since been included by the organisation in other funding applications). However, it is a time consuming exercise, so the choice to undertake the exercise will be optional: if an organisation lacks time capacity, they can opt out. Similarly, they may undertake the exercise, but chose not to share it due to the confidentiality required by it being so business sensitive in nature.

The reflectionnaires, which in turn informed written and rich media case studies, highlighted organisational and personal learning. Informants took the time to write up lengthy responses, and made effort to edit and sign off written case studies and create rich media case studies. The reflectionnaire will be used as a research tool in the main study because it encourages intimate, honest, reflective feedback.
The rich media case study and written case study was redesigned to blend the formats together, to enable direct publishing online, and to allow a wide range of rich media formats, therefore reducing the requirement to present the case study live at some event which would need to be videoed if the case study was to have longevity.

The case studies reported the results and the learnings publicly with the rest of the sector, sharing process, benefits, implications and impacts. Web page analytics, as can be seen in figure 4.2.6.2 below, from scribd.com where the written case study documents were hosted, show the case study posts were significantly read:

Figure 4.2.6.2: Number of reads at October 2012 of the written case studies

Federation Scottish Theatre Digital Action Research Project	Written Case Study Reads via Scribd.com	Publish date
Stellar Quines	225	8.11.12
Dundee Rep	1867	6.8.12
macrobert	n/a	Private, not in public domain
Cryptic	2080	31.7.12
Grid Iron	319	7.9.12

Figure 4.2.6.3, below verifies the results, of reads directly on scribd.com and embed reads (at scottishtheatre.org and at getambition.com):

Figure 4.2.6.3: Number of reads and embed reads verified as statistic on scribd.com
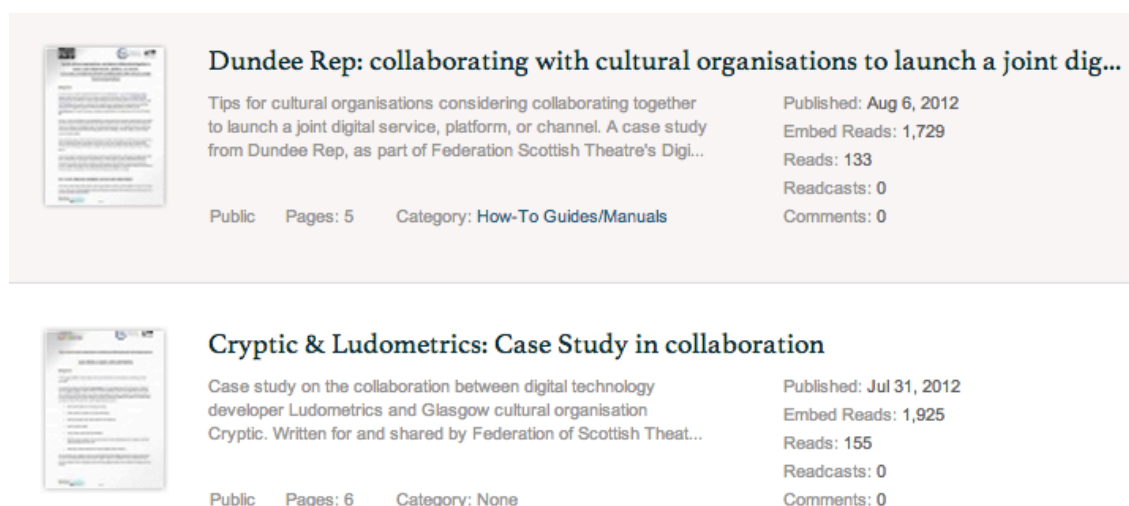
The videos of the rich media case studies are were published on 28.09.12, were hosted on blip.tv (and are now Vimeo), and have been less watched (but as noted above, the format of video recording live presentations will not suit a larger study of over 25 organisations). Figure 4.2.6.4 below shows that between November 1st 2012 (the reset date for the statistics) and January 15th 2013, the videos had been viewed as follows:

Figure 4.2.6.4: Viewer numbers between November 2012 and January 2013 of rich media case studies

The rich media case studies showed open innovation practices - they were an open dissemination of knowledge, shared via the online channels of the Federation of Scottish Theatre, and the AmbITion Scotland programme 2012-14. They helped build confidence and critical mass around the type of digital developments that could be undertaken by other organisations.

4.2.7 Conclusions

The Federation of Scottish Theatre's Digital Action Learning project of 2011-12 as a pilot study allowed the testing of the research tools and data collection methods in a microcosm - a small project, where timelines were condensed. The quality of the data was excellent - deep qualitative data. Feedback on the tools was frank and immediate as the project group was set-up as a close-knit community of professionals, and this created the ideal climate for the piloting and test-bedding. The pilot study facilitated the decisions about which research tools would be the best in a PAR environment. They dually served a purpose within a series of actions, and during learning and evaluation periods, and had integrity with the PAR process.

4.3 The PAR research instruments in *The AmbITion Approach*, for data gathering for the main studies

Following the pilot study's feedback, which highlighted methodological and practical shortcomings, the PAR research instruments were iteratively improved. *The AmbITion Approach* was re-written in 2012, to explicitly blend in participatory action research methods and tools. This extended the range of proformas and resources to provide a set of tools to help organisations plan, act, observe, and evaluate, that worked for all learning styles. The website was

redesigned to bring together *The AmbITion Approach* information system into one place.

4.3.1 Introduction to the research instruments

As change and learning are essential to participatory action research, describing, explaining, and engaging in action is the primary focus. The research instruments for the main studies were designed to track how the change and learning happened. They delivered data back, to the researcher and the participant organisations (Coghlan and Brannick, 2010). The research instruments were selected for their ability to draw out rich qualitative reflections on digital challenges and development - following iterative development over time, and pre-testing in the Federation of Scottish Theatre Digital Action Research project pilot study (4.3, above). The research tools were also selected because of their approachability: they are not formal in their feel, and they are dissimilar to the evaluation tools used by the more formal bodies with which the creative industries are used to engaging. This was an explicit choice to attract interest, attention, and high levels of take-up.

Via the tools of *The AmbITion Approach*, organisations collected and used data in their change journey: the same tools were also the research tools of the study. The research tools were administered through an online information system,[59] in which the research tools were embedded. Digital technology has shaped the development of the action research process in the past (Koch, 2006), and IT has played a major role gathering and processing data in this study. Using digital means was essential, to ensure that:

- the data collection methods and engagement with change and learning about digital development had integrity with the digital development focus of *The AmbITion Approach*;

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[59] http://getambition.com , accessed on 30.05.13

- all organisations developed and shared the same information, data, and reflections - no matter when they started or ended their project - this enabled a comparative data set to be created;
- the user-journey through *The AmbITion Approach* process had low barriers to entry - so that the less digitally-able organisations could still participate through accessible, user-friendly digital tools; and
- organisations could be at any point of planning, acting, and reflecting at any point in time, but the data collection points in the process were already set up to intervene at the correct point, via the research tools being embedded in the process of changing and learning.

Figure 4.3.1.1, below, shows the summary and details of the research instruments, data to be collected, and summary analysis and evaluation strategies for the data.

Figure 4.3.1.1: Summary of research tools, data collection and analysis and evaluation strategy

Research Tool	Features of tool	Data to be collected?	Analysis & evaluation strategy	Useful for research question #?	Action research phase?
Business Case	Online, all questions have to be completed in order to be awarded the funding to complete the AmbITion Approach. Outputs as a .pdf	Benchmarks of where orgs start from, baseline of original aspirations and plans	Deconstruction of the language and aims and aspirations talked about.	1	Planning
Business Model Canvas (optional), business plan report	A write up of the contextualising/auditing and diagnosis/constructing phase, either as a business model canvas diagram or consultants' report. Outputs in pdf or Word doc format.	Representation of and insight into, the system of the organisation, as it is, and as it hopes to be.	Deconstruction of the language and aims and aspirations talked about.	1	End of planning, beginning of acting
Reflectionnaires	Online reflective survey, has to be completed to release final report documentation which releases final payment.	Reflections on whether or not the organisation has seen improvements in digital capability, capacity and confidence; and what individuals' own learnings and reflections are	Quantitative survey results via software. Deconstruction of language and achievements mentioned in long form answers will show changes and impacts. Comparing these against the originally submitted business cases will allow an evaluation of actual progress versus aspirational plans.	2, 3.	End of acting, beginning of evaluating
Rich media case studies	Podcasts, videos, slide or photo presentations which are uploaded to AmbITion website. Tool has full instructions on how to make the case study and upload. Completion unloacks final payment	Case studies created by the organisations themselves show observations and reflections of organisations in their own language and own context.	Deconstruction of the language and achievements talked about and shown in the case studies shows changes and impacts. Comparing these against the originally submitted business cases will allow an evaluation of actual progress versus aspirational plans.	1, 3.	Evaluating
Blog comments (optional)	Questions and articles posted on AmbITion's blog http://getambition.com actively seeking questions	To gather feedback from the arts, heritage and cultural sector (and technology partners) on particular questions linked to: partnership and collaboration; audience engagement; new business models; learning, skills, organisation and sector development	The blogs will draw out feedback from participants in their own voice and from their own perspective, but are completely voluntary. The questions are likely to only elicit responses from those who have strong opinions or passion about the questions, so will be used to add texture and depth to studies, rather than being used as comparable data.	(1, 2, 3).	Planning/acting/evaluating

4.3.2 Business cases

Business cases were completed online on password-protected webpages. For participants, following sign-up and log in, an online form asked ten questions that gathered information to become a short a business case for why an organisation might be considered suitable to undertake *The AmbITion Approach* (see Appendix 3 for an example of the online application form). Word limits for each question were curtailed to 350 words to ensure that the business case developed was succinct, and that the information gathered was comparable with other organisations' business cases.

The online application form was designed to be context aware - applicants could not progress to the next page of the form unless all fields on the current page were complete with the correct type of information - and an automatic autocorrector prompted the correct and complete online application form. The back-end of the website controlled the autosaving of applications, which could be returned to with a log-in, until the deadline for the round had passed. At the deadline, all the applications became unavailable to the website users. The completed application forms were then exported from the website (see Appendix 3 for screenshot examples of the online business case application form, and a PDF of an extracted completed business case)[60].

For the organisation, this business case tool prompted the beginning of their change process. It drew organisations into determining and discovering the need for change, introducing them to the beginning of *The AmbITion Approach*'s cycle. A business case requests, in short format, a rationalisation of why an organisation might want to invest in/seek investment for a new development. As a data source, business cases allowed the benchmarking of where organisations were in relation to digital development, at the beginning of their journey, and for a baseline to be formed of what aspirations organisations had at the beginning of the process.

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[60] The application form online starts at this webpage http://getambition.com/support/make-it-happen/ambition-approach-fund/ambition-approach-form/ accessed 19.07.13.

Deconstruction of the language and aims and aspirations (through transcription and coding) was the planned method of analysis. Benchmarking expressed aspirations and plans from the beginning of organisations' journeys through *The AmbITion Approach* ensured data gathered with tools used later in the process, such as reflectionnaires and rich media case studies, could be used comparatively to show the extent of change and development achieved.

The business cases were completed online via a form - content was uploaded onto password-protected webpages within the information system online at getambition.com. An example of a completed business case, collected as an application form for the *AmbITion Approach* fund, can be found in Appendix 3. The AmbITion Scotland 2012-14 programme website was designed to export the completed contents of the online form into PDF format. Uist Wool's completed application form is an example (Appendix 6). An overview of all successful applicant organisations to *The AmbITion Approach* fund is in Appendix 1.

Ethical issues around using application forms for funding, and as research data have been dealt with. At application stage (see Appendix 3), all applicants were presented with a "Use of personal data" statement, which popped up as window, and needed an explicit acceptance - if the "I agree to the terms and conditions" box was left unchecked, the website did not process the application. The terms and conditions explained the privacy policy around the data collected, stating who would see the data and for what purposes. In order to ensure that application data could be assessed and used for evaluation purposes, lawyers helped the AmbITion programme team to develop a "Use of Personal Data" statement, which had to be (digitally) signed by applicants. This acknowledged that information in the application form would be:

> processed by Glasgow Grows Audiences Ltd (trading as Culture Sparks) in order to evaluate and assess this application. That information will also be processed by Glasgow Grows Audiences Ltd (trading as Culture Sparks) and reported to Creative Scotland for accounting, statistical and monitoring purposes.

Lawyers agreed that as a Service Level Agreement contracted company for Culture Sparks and Creative Scotland, Rudman Consulting should have full access to application data, under the terms of the statement above. Appendix 3 shows the online application form and its terms and conditions as screenshots, including AmbITion Scotland's data protection and Freedom of Information (Scotland) terms and conditions. The terms and conditions were drafted by the AmbITion Scotland delivery team, and then formalised by lawyers. By agreeing to the T&Cs, the team was given the permission by any participant to process data for evaluation and assessment purposes. The terms and conditions stated that Creative Scotland (and their subcontractors - Glasgow Grows Audiences, now named Culture Sparks/Republic- and Rudman Consulting) would have access to the data for accounting, monitoring, and statistical purposes (see Appendix 3 for a screenshot of the terms and conditions).

4.3.3 Business model canvasses

Once the organisations' *AmbITion Approach* facilitated journey began with a consultant (or facilitator), a formal audit of where things were at in relation to digital, took place. Documentation to shape the audit was provided by the getambition.com webpages. This helped organisations plan, think, and to further discover change requirements. Organisations could upload their results to password protected webpages. The business model canvas was suggested as a tool to help organisations at the plan/think/design stage of *The AmbITion Approach* process - they are optional, suiting some organisations as a planning tool. The intention of the business model canvas is to create value and replace outmoded models of defining business models. "Rather than writing a conventional book about business model innovation, we've tried to design a practical guide for visionaries, game changers, and challengers eager to design or re-invent business models...." (Osterwalder and Pigneur, 2010). The business model canvas was recently used with creative organisations in Scotland that had changing business models (music, television and computer games) in a recent work for the Intellectual Property Office (Searle, 2011).

An example of a blank business model canvas (Osterwalder) is in Appendix 6.[61] This, or a similar audit tool, was recommended to be completed by organisations undertaking *The AmbITion Approach*, a process often supported by a facilitator or consultant. The AmbITion Scotland 2012-14 programme's pool of consultants was briefed to use it with the organisations they worked with.

Whether or not an organisation chose to share a business model canvas as part of their application documentation for further funds; or as part of their end of project reporting was left as their decision, as the document could contain commercially sensitive data. Business model canvasses are working documents, and so are often confidential. Uist Wool kindly agreed to share their completed canvas (December 2012, Appendix 6). The canvas was used by the organisation to organise their thoughts around their key stakeholders, activities, resources, offer, channels, customer relationships and customer segments - it can be viewed in Appendix 6. Therefore, the Business Model Canvas is not a formal tool within *The AmbITion Approach*, but can be volunteered. The data from business model canvasses collected added depth and further insight into case study data, but could not be used as comparable data, as there was not a full set.

4.3.4 Business plans and implementation plans or reports

Diagnosing or defining the desired future state was the next step - a process of articulating what the organisation would look and be like once the change had taken place. This is a critical part of T*he AmbITion Approach*, it ensures hope and a positive light shed on what has probably been a fairly depressing process so far (admitting the need to change, and recognising just exactly what/how much needs to change). The participatory action research methods in the *AmbITion Approach* at this stage, suggest that this exercise is undertaken as an organisation-wide brainstorming session, with the construction of a new business model canvas as the documentation output. All staff together work on building consensus of a desired future. Doing this diffracts any political tensions in the system (Coghlan and Brannick, 2010, p. 67).

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[61] http://businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf

Beckhard defines the next phase of action research as "Assessing the present in terms of the future to determine work to be done" (Beckhard and Pritchard, 1992). *The AmbITion Approach* interprets this as the stage at which a formal strategy document, or business plan, for proposed changes is built. The notion of plans for business or business plans have been part of the vernacular of higher education schools of management and business since the 1990s - their value as a powerful tool for the long-term development, planning and management of a business was recognised, as they became formal parts of business studies degrees. Previous to that, they were mainly used to garner financial support (Cross and Richey, 1998, p. xii). Together with evidence of the need for change, the present is assessed in the light of the desired future, and what needs changing and what does not, becomes apparent. Changes are given high, medium, or low priority, and measured as being high, medium, or low impact. This is so that organisations can begin to prioritise (and price-up, in terms of economic and organisational resource cost). Organisations also assess their readiness and capability to undertake the change (a SWOT analysis template is available for organisations that want to identify internal strengths and weaknesses, and external opportunities and threats)[62]. This explicit thinking usually begins to formulate the beginnings of an implementation plan and justifiable business case, as who and what needs to be involved, emerges. The business plan, where organisations clearly explain goals, activities, and milestones, together with how they will provide the financial and human (and other) resource required for the digital development, becomes a part of the process. Pro forma business plan documents were provided[63], should the organisation opt to write it up as a formal document. These could be uploaded via password-protected webpages and were a research tool for this study).

The implementation phase (do/act/deliver) is generally seen as the actual change process. *The AmbITion Approach* recommends that the implementation phase is formally managed, as it is a transition state, and can be unsettling for an organisation's people and processes: the old order has been found to be

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[62] See http://getambition.com/learn/toolkit/2-prioritise/swot-analysis-template/

[63] See http://getambition.com/2009/11/business-case-outline , last accessed 20.09.13.

defective, and the new order is not yet in play. Pro forma implementation planning documentation is provided on the website.

4.3.5 Reflectionnaires

The Reflect and Evaluate phase (check/reflect/discover) of *The AmbITion Approach* is reflection on action - a close look at what has occurred. This stage of the action research process has been formalised by extensive use of it in the American military. "After Action Review" (AAR) is described by Darling and Parry (2000) as moving from being a review of past activity to being a living practice that anticipates issues, and generates emergent learning in action (Darling and Parry, 2000). As review is based on experience, critical questions need to generate learning (rather than guilt or gloating), so in this phase, *The Ambition Approach* seeks to help people individually reflect through asking them to consider their organisations' learning and change via reflectionnaires. Coghlan and Brannick (2010) point out that asking someone a question is a data generating intervention and confirm that interviewing in action research tends to be open ended and unstructured to focus on what the interviewee has to say, rather than containing questions which serve to confirm hypotheses the researcher might have (Coghlan and Brannick, 2010, p. 75).

The 'Reflectionnaire' conflates the terms reflective practice and questionnaire: it started being used as part of the toolkit of reflective learning practice around the turn of the century (Brockbank et al., 2002). This tool is used to focus individuals on reflecting upon, and learning from, their own experience. It gathered individuals' reflections on their individual and organisational learning and improvement at the end of their *AmbITion Approach* project. The reflectionnaire questions focus on reflecting on whether or not the organisation had seen improvements in digital capability, capacity, and confidence; and what individuals' own learnings and reflections were. Personal knowledge is valued by action research, so therefore long, free form text boxes were designed into the online reflectionnaire, which was built with online survey software. This was to encourage reflections in intimate first person narrative. Quantitative results from the survey were provided by the software analysis provided by the online survey

system. Qualitative data was also gathered from the long form answers, the deconstruction and analysis of which will provide insight in the change and learning achieved. The reflectionnaire formed a part of the final reporting process organisations were recommended to undertake to activate final grant payment. Screenshots of the online reflectionnaire that awardees actually completed can be found in Appendix 4.

The reflectionnaires explicitly asked in a final query whether respondents would allow the sharing of their data for academic research purposes after they have completed the ten reflections. All organisations responded positively to this request.

4.3.6 Rich media case studies

Organisations were further encouraged to reflect through telling their story of change or development through rich media. This created a rich media case study, which reflected on their learnings: in their own words and from their own angles. Case studies created (in written or rich media format) by the organisations themselves show observations and reflections of organisations in their own language and own context, as well as proving digital literacy through technology application, and confidence in communication through media technique. Digital storytelling is a widespread practice in secondary level education to help students remember what they learn and develop essential digital literacy skills (Ohler, 2013). The idea has been transferred to *The AmbITion Approach,* as it provides a creative way of reflecting learning, and digital literacy. Deconstruction and analysis of the language, and achievements discussed in the case studies, shows changes and impacts. Comparing these against the originally submitted business case applications to *The AmbITion Approach* fund will allow an evaluation of actual progress versus aspirational plans. Additionally, publicly sharing the successes and the failures of developments is essential to building collective knowledge and confidence within the community of practice, a key benefit to participatory action research. The guidelines given to organisations about the format and content of the case studies, is in Appendix 5. The rich media documents: videos, podcasts and presentations are explicitly published by

organisations into the public domain online at http://getambition.com, so no special permission is required to use the data (see Appendix 5). The rich media case studies were uploaded online directly by the participants, and exhibited in the online organisational profiles of the organisations, as well as being publicly available on the website[64]. Screenshots of the rich media case study instructions from the website, the instructions themselves and the upload page from the website's content management system, as well as a completed rich media case study exhibited as an open access online page (completed by Uist Wool) are in Appendix 5. As discussed above, the rich media case studies created by the organisations provide evidence of external validation of their learning and knowledge via the sharing of it publicly online.

4.3.7 The research tools embedded in the information system

All research instruments were embedded in *The AmbITion Approach*'s information system. Some were available openly, online at getambition.com, some were password-protected webpages for participants only. *The AmbITion Approach*'s online toolkit menu, figure 4.3.7.1 below, shows the resources available openly online to support organisations and their co-researchers/consultants/facilitators at each step:

Figure 4.3.7.1: The online toolkit's menu, showing resources available at each step

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[64] See all the rich media case studies developed by the organisations and practices themselves at http://getambition.com/category/content/mith-fund-case-studies/ last accessed 20.09.13.

The AmbITion Approach – Online Toolkit

Change Management//Action Research//Design Thinking

Plan// Think// Discover — Audit your organisation — Diagnose your needs — Plan// Think// Discover-Define

AmbITion Methodology

Check// Reflect// Deliver -Discover — Reflect and Evaluate — Develop your business case — Manage your implementation — Do// Act// Define-Develop

Do// Act// Deliver

What is *The AmbITion Approach?*

The AmbITion Approach is a change methodology for enterprises looking to transform and build adaptability to deal with the continuous disruption of digital technologies.

Integrating the opportunities of digital into an organisation demands root and branch change – development and adaptation across the whole organisation. Designed by strategic development and change management specialists Rudman Consulting, *The AmbITion Approach* blends the methods of strategic change management consultancy with action research; and utilises some of the tools, attitudes, and techniques of design thinking, and creative practice.

The AmbITion Approach online toolkit is FREE to use and has been specifically designed for organisations of any size, type and operational model – to enable any enterprise to approach digital development with confidence. So if you want to ensure your organisation is digitally fit enough to adapt to the constant disruption of continuously emerging digital technologies, this toolkit is for you!

The AmbITion Approach has been extensively used with a range of organisations, and iteratively improved – this toolkit takes their learnings and experiences into account in

In summary, the tools for data capture are a part of the participatory action research process at the following points of the journey (highlighted in **bold**):

Organisation applies: The online password-protected webpages requests the **business case.**

Organisation successful: The organisation starts to plan and act, facilitated through *The AmbITion Approach* journey, using the online toolkit (above), and possibly developing a **Business Model Canvas** or **other audit documentation (write-up of brainstorm, technology audits, etc.).**

Organisation progresses: The organisation makes headway through the approach, potentially developing a **business plan, a new business model canvas, a SWOT analysis,** and **implementation plans**.

Organisation completes: The organisation creates a **rich media case study**. This ensures that they reflect on their learning by telling their story. A **reflectionnaire** is also presented to the organisation as a first step to help them organise their thoughts.

Data was continuously gathered as an explicit intervention through the information system's openly and pass-word protected web pages. The instruments utilised for this research as data gathering mechanisms were chosen for their ability to reflect the impact of change, as well as their usefulness in encouraging organisations to progress through the different stages of *The AmbITion Approach*. They are suitable to be used by organisations undertaking a period of participatory action research, as they provided a method of gathering rich and deep feedback that:

- highlighted organisational and personal learning following digital developments;
- shared beneficial results, but also showed negative results and failures (increasing the sector's collective knowledge); and
- encouraged other organisations to start considering digital developments, because they would now be aware of the opportunities and implications, having heard the stories.

These embedded PAR tools, were integral now to *The AmbITion Approach,* via its online information system at getambition.com. See figure 4.3.7.2 below, showing how research case studies emerged for each participant, as documentation was gathered throughout their change journeys.

Figure 4.3.7.2: Case studies emerge through documentation gathered at different stages in *The AmbITion Approach* journey
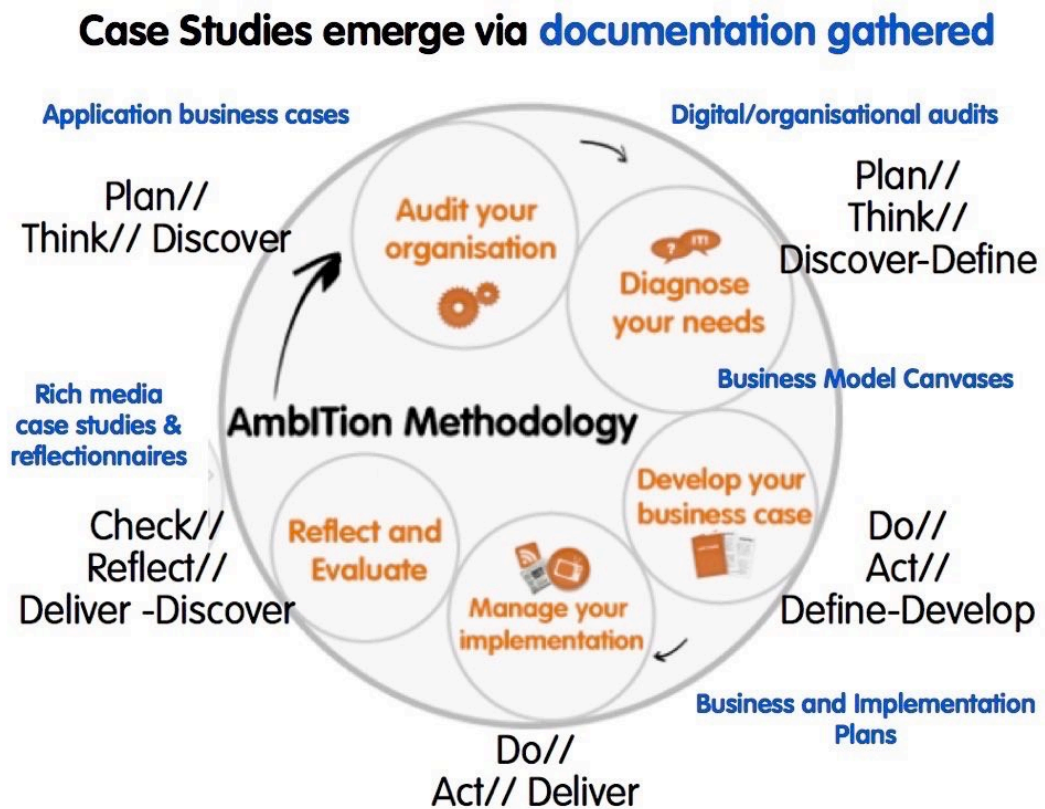
4.4 Recruiting the participant organisations

4.4.1 The guidelines and information given to organisations potentially interested in *The AmbITion Approach* fund

Participants were self-selecting in that they proactively applied to *The AmbITion Approach* fund. Their applications were informed by formal resources, such as access to fund guidelines and application packs (see Appendix 11). The guidelines were prepared, and published online, and in other accessible formats, in July 2012 by the AmbITion Scotland core team (Culture Sparks and Rudman

Consulting). Participants also had access to informal resources to guide them into making a decision to apply, such as:

- video case studies from arts, cultural and heritage organisations that had already completed *AmbITion Approach* journeys, viewable in the AmbITion TV[65] section of the website;
- the team themselves, who could chat about the possible benefits and the impacts of undertaking *The AmbITion Approach* in person or on the phone; and
- previous programme participants who could be contacted in person or on the phone.

4.4.2 The application, assessment, offer letter, and contract processes (ethics)

The assessment and decision making guidelines available to applicants can be viewed in Appendix 11. The assessment criteria and guidelines to the assessment panel can be seen in Appendix 12. Following application via the completion of the business case forms, the panellists marked the applications against the scoring sheets (see Appendix 12), which reflected the stated criteria in the guidelines (see *AmbITion Approach* Fund guidelines, Appendix 11). A panel meeting was held with all panellists to discuss the applications, review the marking, and decide on the awards (see Appendix 12 for an example agenda of a panel meeting). Shortly thereafter, an award offer letter, with feedback and a recommendation for which AmbITion consultant to contact was sent out, together with a contract (see Appendix 12 for an example award offer letter and contract). A letter with detailed feedback was sent to unsuccessful applicants (see Appendix 12 for an example of a feedback letter). Once signed, contracts were returned to the AmbITion Scotland team, and funds were released to the organisation to allow them to recruit their consultant/facilitator and begin their change journey.

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[65] See http://getambition.com/category/video/ and http://getambition.com/category/content/mith-fund-case-studies/ , accessed 19.07.13.

4.4.3 The researcher's role in *The AmbITion Approach* fund design and development

The researcher for this study was part of the AmbITion Scotland programme 2012-14 team that created all the guidelines, assessment criteria and process, and offer and contract documents. All elements of the process and documentation were reviewed and refined by lawyers. The researcher oversaw the embedding of all the guidelines, assessment criteria and process in the information system - an open website with some password-protected webpages for participants. The researcher did not assess the applications, nor attend the panel meetings, but did submit a report to each panel meeting including an opinion-based review of each application, a review of the round in general, and offered any overarching comments about emerging themes for the sector in general. The researcher was also responsible for briefing and managing the team of consultant/facilitator/co-researchers that worked with organisations that had received funding to undertake *The AmbITion Approach*.

As discussed above in detail already (4.1 above), the PAR influenced methodology of *The AmbITion Approach* involves outsiders collaborating with insiders from the point of problem definition. Participatory action research is highly collaborative and the researcher was *AmbITion Approach* consultant/facilitator/co-researcher for 5 of the participant organisations (Uist Wool, macrobert, Pitlochry Festival Theatre, Scottish Sculpture Workshop and Off The Rails Arthouse), and so worked as practitioner researcher (Herr and Anderson, 2005). The researcher, in undertaking this study, also became a reflective practitioner - someone undertaking an inquisitive research study to "learn to learn" about their own practice to become a better practitioner (Schon, 1983). The positionality of the researcher can therefore be described as multiple and fluid, with various roles and statuses being in play at any one time bringing the benefit of many different viewpoints.

4.5 Research design

4.5.1 Approaches to research design

Qualitative enquiry can be undertaken through different approaches, with the choice of the approach impacting the process of research. Creswell (2013) suggests that there are five main possible approaches, which are narrative, phenomenology, ethnography, case studies, and grounded theory. He recognises that participatory action research "could certainly be a sixth approach… also discourse analysis and conversational analysis" (Creswell, 2013, p. 9). Creswell sees mixed methods as a distinct methodology bridging qualitative and quantitative research (Creswell and Plano Clark, 2011).

The context of the study influenced the research design. Including PAR in the framework so that researchers could work collaboratively with the participant organisations' teams to actively participate in the change journey meant that an ethnographical approach was not appropriate. An ethnographic approach would have demanded a researcher being separate to the team in order to objectively undertake participant observation and ethnographic interview (Brewer, 2000). Similarly, phenomenology was an inappropriate approach as phenomenology studies conscious experience as experienced from the subjective or first person point of view. Phenomenology studies the structure of various types of human experience ranging from perception, thought, memory, imagination, emotion, desire, and volition to bodily awareness, embodied action, and social activity, including linguistic activity (Smith, 2013). The research instruments of the approach do collect first person narrative descriptions, but the aim of the research is to use that narrative to find out how organisations are responding to change and digital disruption, rather than consider the impact of these on the people inside the organisations. A narrative approach is also inappropriate, as "narrative research is best for capturing the detailed stories or life experiences of a single life or the lives of a small number of individuals" (Creswell, 2013, p. 55).

The research instruments collect data that could form a case study for each organisation. A case study approach to research facilitates exploration of a phenomenon within its context using a variety of data sources. The research instruments of *The AmbITion Approach* collect the type of data that could form a case study for each organisation. The case study approach is a descriptive, explanatory approach, compiling historical or archival data from the organisations According to Yin (2009) a case study research design should be considered when the focus of the study is to answer "how" and "why" questions, which is an aim of this study. However, Yin states that a case study research design is only appropriate if the researcher does not manipulate the behaviour of those involved in the study (Yin, 2009). The involvement of the researcher as a participative collaborator (manipulator) because of the decision to include participatory action research in the approach makes the case study approach also inappropriate.

Another alternative approach could have been to undertake a more positivistic scientific experiment with the participant organisations looking to digitally develop. However, this approach would not have been suitable, as all participant organisations had different contexts and challenges and contexts, and it would have been difficult to control behavioural events across them. Experiments need controlled environments (Gibbons et al., 1994).

4.5.2 A mixed methods research approach to the quantitative and qualitative data

Having considered various approaches to the research design, the study used a mix of qualitative and quantitative research methods to analyse the data. Qualitative research is not a linear process, it is cyclical and iterative, particularly suiting the participatory action research methodology in *The AmbITion Approach*. Repeated cycles of data collection and analysis allow adjustments to be made about how questions should be asked, and in what format. The theory begins to build at an earlier stage than when purely quantitative research approach is undertaken, when theoretical ideas emerge purely from the data collected. For

example, the information gained from the preliminary data collection via the pilot tools, during the pilot study for the main studies (4.2, above), led to a better understanding of how the data collection tools might be amended to build up a more sophisticated and precise data-set.

Qualitative research is about connecting with participants at a human level and so determinable levels of probability are difficult to apply to qualitative data. The data is mainly expressed in the form of words, sounds, pictures - common when people are a focus of the study - they express accounts, opinions, descriptions, etc., via talking or writing. The "soft" nature of the data is inextricably bound up with human feelings, judgements and attitudes and society's interplay. Qualitative research explores issues and phenomena through analysing this unstructured data to present findings that answer questions. Qualitative research is practised in many disciplines, but typically, data collection approaches from social science research methods are employed such as in-depth interviews, ethnography, semiotics, content analysis, and focus groups (Walliman, 2011, p. 130). Qualitative research is a fluid and dynamic contrast to the more rigid and structured format of quantitative methods, and is used in both studies. Both studies also utilise quantitative analysis to deal with the data in the form of numbers to investigate their properties (both utilise statistical techniques with the mathematics enabled by Excel and CAQDAS software, Nvivo 10 (see 4.4.4, below). Statistical tests are more reliable the greater the number of cases - research methods guides recommend that twenty cases are required to make sense of the analysis (Walliman, 2011, p. 114), both studies tested twenty one cases, for the specific analysis.

The case studies of the participant organisations were a key source of data for this study, and case study research is the preferred research strategy for social science when "how" or "why" questions are being asked, when the researcher can not control events, and when the focus is on contemporary phenomenon, in a real-life context (Shah et al., 2007, p. 1). Participatory action research is an expression of science that assumes reflectivity and experimentation, meaning that humans and their worldviews influence outcomes. It is practice-led, rather than practice-based,

and contrasts with traditional scientific research, where participants are objects of the study. *The AmbITion Approach* is a journey or pathway to theoretical and substantive practical knowledge: and its action-led processes, its inquiries, and its techniques encourage reflective thinking and practice by the people undertaking the approach for their organisation. Process speaks to the journey rather than the destination, and the techniques of the process facilitate substantive knowledge around real phenomena (Chevalier and Buckles, 2013, pp. 1-2). As such, the outcomes of the individual participant organisations are bespoke, but the process of action research, embedded in the information system, made the learnings available simultaneously to the wider network of participants, as each organisation was going through its change journey.

4.5.2 Qualitative data analysis methodology via grounded theory

Qualitative data analysis is still in its early stages, there is no prescribed standard for approaching qualitative projects. However, grounded theories provide an approach for data analysis (Corbin and Strauss, 2008, p. 15), always manifesting with the consistent actions of:

1. data reduction - breaking down, discovering, examining, comparing the data
2. data display - discovering categories and concepts
3. conclusion drawing - verification of themes (Miles and Huberman, 1994, p. 10).

The general method of grounded theory is commonly used as a methodology for the analysis of qualitative data. Established in the late 1960's by Glaser and Strauss (1967) with the aim to generate or discover a theory from data, it has achieved wide acceptance around its academic rigour, and is a popular choice of methodology (Glaser and Strauss, 1967). The goals of the grounded theory method of data analysis are to:

- develop hypotheses which offer explanation which is grounded in data, and
- generate concepts that discover and explain the core concerns or issues of importance of participants, and how they resolve or process them.

This involves the researcher adhering to the strictures of the research method:

1. identify your area
2. collect data
3. analyse data by comparison and interpretation into open codes which emerge from the data,
4. develop theoretical codes which conceptually connect within categories, and
5. align categories with research themes or concepts (Glaser, 1998, p. 141).

It has had many permutations, after Glaser and Strauss fell out, and split the methodology, with Glaser's work now described as "classic grounded theory". Glaser's classic grounded theory methodology cross-referenced with Miles & Huberman's steps of qualitative analysis (Miles and Huberman, 1994), was the framework method for analysis of data in this study. The stages of the research are cross-referenced with this study's timeframe in figure 4.5.2.1:

Figure 4.5.2.1: Stages of the research method cross-referenced with this study's timeframe

Stage of research method	Glaser's classic grounded theory	Miles & Huberman steps of qualitative analysis	Timeframe during this study
1	identify area	Data reduction	Pilot study, 2011-2012
2	collect data	Data reduction	2012-2014
3	analyse data by comparison and interpretation into open codes which emerge from the data,	Data reduction/organisation	2014
4	develop theoretical codes which conceptually connect within categories	Data display and explanation	2014
5	align categories with research themes or concepts	Conclusion drawing, and testing their plausibility	2014

Thematic analysis is widely used as a qualitative analytic method, but it is rarely acknowledged, possibly because it is so methodologically flexible, and therefore it is hard to demarcate. Commentators on the theory and practice of qualitative analysis characterise it as a tool to use across different methods (Boyatzis, 1998);

Ryan and Bernhard define it as a process performed within analytic traditions such as grounded theory (Ryan and Bernhard, 2000).

Recently, thematic analysis been considered a method in its own right, for example it is used extensively in the discipline of psychology, where it is considered to be appropriately used within the broad theoretical framework of grounded theory (Braun and Clarke, 2006):

> A 'named and claimed' thematic analysis means researchers need not subscribe to the implicit theoretical commitments of grounded theory if they do not wish to produce a fully worked-up grounded-theory analysis. (Braun and Clarke, 2006, p. 8)

4.5.3 Computer Assisted Qualitative Data Analysis Software (CAQDAS)

Disruptive digital technologies have caused social and technological changes that have impacted the way qualitative research is conducted. Over the last five years, it has become cheap to capture many hours of audio and video digitally, store many digital photos, share text online, and create and conduct online surveys. The process of conducting qualitative research has become increasingly technologically driven. Emergent qualitative research practices reflect digital influences. For example - observational ethnography might take place in an online community, analysing blog posts and comments. Focus groups might take place via instant messaging and use online survey software to gather responses. Technologically evolved digital methods and approaches for facilitating the analysis of natively digital and web-based data are required by this study, which has gathered many different digital formats of data through an online research instruments.

Computer Assisted Qualitative Data Analysis Software (CAQDAS) packages enable tasks that would be difficult or extremely time consuming to replicate by more traditional methods. New and diverse data types can be handled and incorporated alongside one another, and many combinations of data queries, across type, can be integrated within a single software programme, allowing

relevant materials to be accessed by the researcher in one place. CAQDAS do not analyse the data for the researcher, they facilitate data management, offering flexible ways of handling text, image, and multimedia formats. The interpretation of results rests with the researcher. (Silver and Lewins, 2010, p. 326).

4.5.4 CAQDAS options used

All the data collected by this study was digital in its native form, therefore it was in the right format already for analysis using software. Manual analysis of large amounts of digital data would be extremely time-consuming and difficult, if not impossible, and the efficiencies that computers bring to qualitative research, such as being able to return to a big data set with different questions and receive new results in real time through software which is constantly developed to perform faster, would be negated.

This study utilised the software NVivo 10,[66] which was designed as an information management system and qualitative research tool, for the digital era. It began in the late 1980s as a tool for analysing rich text formats (word processor formats like Word documents). It has strengths around facilitating the organisation and classification of digital data via thematic coding tools. Text search, grouping and filtering, and annotation tools enable the dynamic querying and exploration of that data through presenting it visually, in forms such as tree maps, and word clouds. NVivo was used to manage and interpret data quantitatively at first, by building matrices of codes and by analysing metrics - such as word frequency - to inform the resultant data analysis. NVivo also worked with the types of qualitative data this study gathered. It enabled data collection, organisation, and analysis from this study's unstructured qualitative datasets: business cases (Excel spreadsheet collection of long-form textual data), and reflectionnaires (PDF export of long-form textual responses). Data extracted from reviewing rich media case studies (web pages, pictures, audio, video) by the researcher was also added in as Excel spreadsheets. NVivo had strength in the tools it provided to help the

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[66] See http://www.qsrinternational.com/products_nvivo.aspx?utm_source=NVivo+10+for+Mac

researcher interrogate and interpret the data. It was able to retrieve coded data from across a whole set, and this allowed it to be viewed in or out of context. Mapping tools provided visual ways of viewing patterns, and search and query tools provided ways to interrogate the data set according to the presence or absence of applied codes. This allowed patterns and relationships to emerge from the data.

Snap[67] online survey analysis software was also used for this research: it offered a multi-mode approach to distributing reflectionnaires as a tried and tested survey software, and this ensured data was collected reliably over a long period of time (the reflectionnaire was open online for over two years). The digital format of the reflectionnaire was optimised by the survey software, to be responsive whether viewed and completed on desk/laptop; tablet; or mobile device, no matter the screen size. This ensured there were no distribution issues, and completing the reflectionnaire was convenient. Data collected was stored via Snap online, making it easy to see numbers of completed reflectionnaires, and to extract data for analysis and reporting. The quantitative data could be pulled into a statistical report and charts via the Snap software. However, given the open-ended nature of most of the answers in the reflectionnaire, most data was exported to PDF for the qualitative evaluation software to use (NVivo).

4.5.5 Reviewing the rich media data

The data within the rich media case studies came in many different digital forms (PDF documents with pictures, audio podcasts, videos, PowerPoint presentations uploaded via SlideShare, and Prezi presentations). The methodology for reviewing this evidence was to extract statements of evidence of change. Practical changes achieved through action and implementation were collected, as was evidence that showed the organisation learning through research, or developing theoretical knowledge. Additionally, verbatim quotes were gathered that reflected change or adaptation being achieved. This activity was done manually, with the researcher listening to or reading the rich media asset twice, and extracting statements

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[67] http://www.snapsurveys.com/survey-software/

written or said by the representative of the organisation in the rich media case study. Appendix 15, below, shows examples of the case study review matrix design.

4.6 Conclusion

The integration of action research into *The AmbITion Approach* in 2012 was considered suitable for a sector used to practice-based learning and change, and a sector experiencing a constant need to change because of the demands disruptive technologies place on their businesses. Participatory action research was the specific branch of action research applied to the approach. The definitions of level of change achieved, and the evidence required for this as set out clearly by Coghlan and Rashford was also introduced to *The AmbITion Approach*, as a suitable classification mechanism to prove and validate change and learning (Coghlan and Rashford, 2006). This is a new addition to the framework, to prove and validate change through action research, and is a contribution to knowledge that will be tested practically through being applied to the results of this study (see 7.2, below).

Data gathering is a key feature of participatory action research, delivering data and evidence back to the organisations as well as to the researcher. The tools through which data is gathered by PAR projects are practically oriented, using a variety of innovative methods for pragmatic impact. Innovation in method is considered a core aspect of PAR projects, as tools must be relevant to business practices, which move on apace (Chevalier and Buckles, 2013). Innovative methods though could be risky to apply to a large research project, so pre-testing them via a pilot study was essential.

Since the 1990s, pilot studies have been considered as good practice within social science research (van Teijlingen and Hundley, 2001, p. 1). Checking the feasibility of the chosen participatory action research tools, and testing their

validity as data gathering tools, via the pilot study, ensured the resulting research instruments for the main study were well-designed. The benefits of undertaking a pilot study) were that the research instruments were "tried out" in a small group situation (The Federation Scottish Theatre's Digital Action Research project, see 4.2, above, and a full description of the activity and results in Appendix 10). In this environment, immediate feedback was generated if they were ineffective, or too complicated. The tools were iteratively improved following pilot study feedback, and so could be implemented as the research instruments in the information system (open and password-protected webpages) of the AmbITion Scotland 2014 programme and processes confidently.

Additionally, the pilot study also identified potential practical problems of the research tools - for example, participants of the pilot could create rich media case study files, but did not necessarily have the technical skill to upload them in the correct format from their computers to a video sharing website. This was resolved for the larger scale, main study, which had many more participants of differing digital skills levels, by developing clear protocol for participants to follow. This was achieved by the design of the webpage for uploading rich media files, and through the development of step-by-step instructions, supported by training materials.

The research instruments of the main study were selected for their ability to draw out rich, qualitative, reflections on how organisations reacted to digital challenges and development. They were further redesigned and refined to be approachable and fun to use, work in online environments, and also be a key method of feeding back data to the participants themselves and the facilitator/consultant/researcher as evidence of action and change (4.3, above). The research instruments gathered a great deal of qualitative data from 21 organisations undertaking *The AmbITion Approach* over a period of time spanning October 2011 - July 2014. The data gathering process and issues of ethics were discussed. For example, the researcher worked as practitioner-researcher with five of the organisations directly, but permission was granted by all other organisations to share their data with this study through the contracts they signed (enabling access to business case

applications); explicit permission they gave (reflectionnaires); and open access they provided to case studies through the publishing of them online.

Section 4.5 clarified that quantitative data was also collected alongside qualitative data, and a mixed methods approach to data analysis was required. A grounded theory approach was applied to qualitative data to ensure a robust methodology for discovering hypotheses and concepts from data. Glaser's classic grounded theory methodology cross-referenced with Miles & Huberman's steps of qualitative data analysis, was the framework method for analysis of data in this study (Glaser and Strauss, 1967) and (Miles and Huberman, 1994).

Disruptive digital technologies have caused social and technological changes that have impacted the way qualitative research is conducted. Quantitative and qualitative analysis was facilitated by Computer Assisted Qualitative Data Analysis Software (CAQDAS) - Snap survey and NVivo 10 software was used to support the data analysis of the study.

Recognising the elements specific to participatory action research methodology that now are a part of *The AmbITion Approach,* was an important development to describe in detail. Academics have called for more "work and creativity" to strengthen the theoretical foundations of PAR, and its potential to be an informed alternative to positive science (Chevalier and Buckles, 2013, p. 5). This study's initial empirical work has provided some substantive evidence for this call, as embedding PAR has enabled the approach itself to become an academic inquiry mechanism for this study. The research instruments gathered data to inform a benchmarking study to establish baselines and this is presented in chapter 5, below.

5. First enquiry - establishing a benchmark baseline

This chapter reveals the results of examining the initial data, collected by the research instruments, embedded in *The AmbITion Approach*. The purpose of the chapter is to expose the process and results of the grounded analysis undertaken on the initial dataset. A grounded theory approach was applied to the content (mainly qualitative, textual data), to ensure a robust methodology for discovering hypotheses from the data (Glaser and Strauss, 1967). A mixed methods (quantitative and qualitative) data analysis strategy was applied. The analysis work was facilitated by Computer Assisted Qualitative Data Analysis Software (CAQDAS) - Snap survey software and NVivo 10 were used for the study.

Themes relevant to the research questions emerged as results, from analysing the content. A baseline was established, of expressed hopes, aspirations, worries, and issues of the organisations at the beginning of their change journeys. A benchmark emerged, about why and how the organisations wanted to digitally develop: their practical and theoretical knowledge needs; their aspirations and hopes about how they could adapt their businesses. (Chapter 6, below, is a comparison study against this baseline. It will reveal to what extent the organisations built confidence, capacity, and capability in adaptation; and what new practical and theoretical knowledge they generated around their digital developments).

Section one summarises the general trends, subjects, and needs expressed in the applications (expressed as business cases) of the twenty one organisations undertaking *AmbITion Approach* journeys during AmbITion Scotland 2012-14. These are compared to the general trends, subjects, and needs expressed by creative enterprises in the first 2009-11 phase of AmbITion Scotland, as evidenced by applications from 2009. The comparison acts a contextualisation for the reader, clarifying what digital developments organisations wanted to undertake (the "what" of the digital developments of the organisations, is not the central interest of this chapter).

Section two examines the data analysis processes for data reduction and organisation, and the results of that data analysis. It also examines the processes and results of the inductive analysis, undertaken.

Section three examines the process and results of the deductive data analysis. A thematic analysis was undertaken, after the inductive data analysis had generated vague results not clear enough to justify code generation. Thematic analysis is a data analysis method in its own right, but also an established tool of grounded theory. This was an addition to the planned data analysis strategy, but a necessary step to ensure that the codes created were not just grounded in the data as proven semantically, but also grounded in the latent data. The codes needed to reflect relevant, meaningful, and useful ideas and subjects - emerging thematically and semantically. This was so they would be usable to create evidence for the research questions of this PhD study at both benchmarking and comparison study stages.

Section four reveals the results of the qualitative data analysis through the grounded method of applying the codes, which were created deductively through the thematic analysis, to the whole dataset.

Section five pulls together conclusions and summarises the baseline - the learnings from the benchmarking study of data collected at the beginning of organisations' *AmbITion Approach* change journeys.

5.1 Contextualisation: a comparison of AmbITion Scotland 2012-14 trends, subjects, and needs, to those prevalent in AmbITion Scotland 2009-11

Some general observations around how the digital development trends and needs changed in the creative sector, as time passed, are offered here to give the reader an understanding of the sector at a certain point in time, 2012/14. This was

elicited by analysing, for comparison, all the applications received throughout the different phases of the Ambition Scotland programme. Funding proposals were made in 2009 (phase one, not the subject of this PhD study). These were anonymised and compared to the business cases that were submitted between 2012-14 (the subject of this PhD study, see Appendix 3 for an example of the application form, which extracted the business case). This produced a longitudinal qualitative data set for the short contextualisation study, below. It showed the greatest concerns of organisations in relation to their own digital development, and how these issues changed over time. This study reveals what digital developments the organisations were interested in, and is included to provide general context for the reader.

5.1.1 2009 - 2014: four years of both consistent *and* changing priorities

The table (Figure 5.1.1.1, below) shows that audience engagement (labelled AE in the table below, including in its definition social media, CRM, and rich media production), remained a consistent priority over the four years. General digital development (projects made up of more than one of these areas of activity), and web development also all remained consistent priorities over the four years. There were fewer proposals from organisations for which digital working was a totally new area, and subsequently a reduction in organisations that 'don't know what they don't know', as well as fewer proposals focussing on legal or IP issues. New priorities for phase two in 2012-14 were mobile development, as well as remote working, digital infrastructure improvement, and support for carbon reduction projects utilising digital tools.

Figure 5.1.1.1: Comparison of digital development trends and needs, between phase one 2009 - 11 (shown in blue) and phase two 2012-14 (shown in red).

number applications in 2009-11
number applications 2012-14
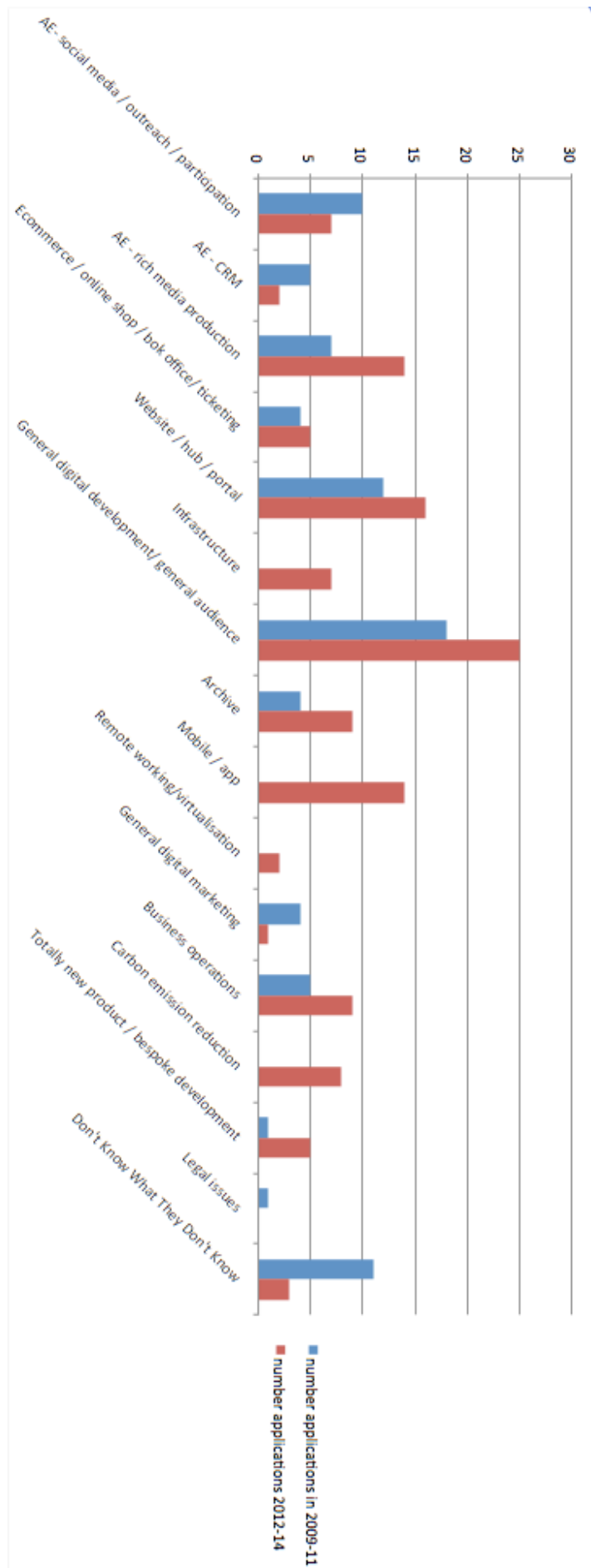
(Source: project report to Creative Scotland, October 2013)

5.1.2 Evidence of a general belief in the importance of digital development

It was clear that Scottish creative enterprises, regardless of size or geographical position, understood the core value of the implementation of digital technologies in their working process. Regardless of the level of digital literacy, each saw a need to gain a deeper knowledge of digital practice to effectively connect and communicate better their work to the public. This is a typical example of a statement reflecting that:

> The organisation will identify how we can utilise digital technologies to improve and develop our organisational efficiency and proficiency, and our online promotion, communication and engagement with audience, participants and artists (Phase two 2012-14 business case).

General digital development was identified as an important need in both phases of applications. However, by 2012-14, there was more clarity on the purpose of what the organisation wanted or needed - projects tended to be more grounded. For those organisations that had a clear route-map in mind, there were identifiable repeated patterns in plans. In comparison, this quotation from a 2009 proposal shows less specific ideas about how to digitally develop:

> Company personal and board skills development, training, consultation and involvement creates a digital literate board and skilled senior management team confident in implementation and use of new technologies for business and artistic purposes. Assistive technology and internal communication improvements will increase organisational effectiveness overall. Maximisation of use of website, optimisation in web searches, timely updates and more accessible content with audience interactive opportunities and company networking within other websites and online communities will increase potential audience and deepen engagement (extract from an application to AmbITion Scotland Phase one 2009).

Whereas this phase two 2012-14 proposal shows very specific ideas about how the organisation wants to achieve general digital development:

> Our application identifies the fundamental organisational need to build a system that addresses primary needs - e-mail marketing, CRM system, unification of databases and providing reporting tools and engage a trainer in how to use this system to grow our digital learning. (Phase two 2012-14 business case)

5.1.3 From a focus on websites to a wider literacy of digital development

In the first phase in 2009, the most popularly identified need was to revamp the organisation's website. Here too though, there were several levels of sophistication, from very basic changes to improve efficiency and participation, to cutting edge projects. Many phase one 2009-2011 projects focused on audience engagement through social media and user-generated content, which was new and disruptive at the time. For example one organisation states:

> We wish to develop a new website to enable us to become more interactive and accessible in our communications, strengthening public engagement and benefiting a wide audience (extract from an application to AmbITion Scotland phase one 2009).

Phase two 2012-14 applications demonstrated a more digitally literate set of proposals. The number of applicants interested in implementing more technically sophisticated rich media content in their websites - including augmented reality (AR) and geo-location - was higher. Similarly, in phase two 2012-14 applications, many organisations wanted to explore the possibilities of creating mobile applications as the trend toward mobile platforms began to reach critical mass in 2012 onwards (see this trend discussed in 2.3.3, above). For example:

> Create a Digital Estate that maximises use of technology to engage better with current and prospective audiences. Professional, interactive and informative with responsive mobile design, it ensures opportunities for commercial growth and… especially will promote and enhance the reputation of (the organisation) worldwide. (Phase two 2012-14 business case)

5.1.4 Building legacy, stakeholder relationships and access

The results of the comparison between phase one 2009-11 applications and phase two 2012-14 applications also highlighted a trend relevant to how cultural organisations understood digital development: as an exercise in sharing knowledge, experience, and creative practice. The applications showed that participants saw digital engagement as an opportunity to open doors to the public and stakeholders, both building a legacy, and widening access. The first opportunity of building a legacy was reflected in the increased number of organisations that wanted to create archives of projects to showcase collections, or catalogues (5 from phase one 2009-2011, to 9 in phase two 2012-14). The second opportunity of widening access is reflected in the high number of 2012-14 applicants that proposed live streaming of their performances and/or rehearsals, with an aim to increase the depth and breadth of engagement (by reaching current audiences in a new way as well as reaching entirely new audiences). For example, one states:

> The organisation plans to create a high quality, exciting and engaging digital hub for [our] project. This will feature interactive online resources and live online streaming of [a] concert [series]. (Phase two 2012-14 business case)

It was interesting to initially consider the specific digital development themes and topics organisations wanted to pursue, and this exercise acts to construct a broad context of the subjects. The "what and when" that organisations wanted to focus on developing, showed the likely areas of action and practice in the change journeys. The aspiration to undertake practical action itself is important in a study seeking to examine the efficacy of action research. The focus of this PhD study though is to analyse the evidence from the organisations, to gauge the extent to which a participatory action research focussed methodology actually created change, business adaptability, or even transformation.

This benchmarking study now expands to analyse in depth the AmbITion Scotland *AmbITion Approach* 2012-14 business cases. In particular to seek evidence of expressed need for change (the "why and how"), and evidence of digital

aspirations that organisations had, about the effect of the change that they hoped to achieve. This forms a baseline, against which later evidence can be compared.

5.2 Inductive data analysis - for the result of data reduction and organisation

The framework method for analysis of data in this study is Glaser's classic grounded theory (Glaser, 1998), cross-referenced with Miles & Huberman's steps of qualitative analysis (Miles and Huberman, 1994), summarised in the table 4.5.2.1, above, and discussed in further detail in 4.5.2, above. As grounded theory demands that data is first interpreted into codes that emerge from the data itself, this next section reviews the processes and outcomes of the core data analysis, for data reduction and organisation. At this exploratory stage of analysis (of trying to organise the data), inductive analysis was undertaken, to generate open codes that emerged from the data. This section describes the processes, outputs, and results of the initial inductive analysis of the data.

5.2.1 Initial data import

All successful business case applications were collected by the online business case application research tool (see Appendix 3, below), at the beginning of an organisation's change journey. Once entry to the programme was closed, all business case applications were exported together into .csv format to enable the exclusion of question text, and to ensure the text input was exclusively from the organisations. The data was "cleaned" by removing the column in the .csv file that contained the questions. CAQDAS software NVivo 10 was used to import the data via the .csv file. This contained the large volume of aggregated textual qualitative data (21 applications, each 1100 words, total 23,100 words). As the data had some inherent structures in the .csv format (responses to questions), the software enabled systematic auto coding at import. This meant, for example: respondents' individual business cases could be viewed, as could the whole dataset in response to a single question.

5.2.2 Inductive content analysis

An initial, exploratory, inductive content analysis exercise was undertaken using the software. The software was queried to undertake word and phrase analysis of all the text, to establish matrices of occurrence, and word frequency charts of the most mentioned words and phrases. It was hoped that this might provide the researcher with an immediate means of simplifying the dataset; and of being able to apply inductive reasoning.

Patterns of words, and frequently used words, were abstracted by the software. In this data analysis exercise, the individual organisations' applications were merged as multiple sources, to confirm and triangulate the events of the most well-used words. As this was done by computation, the open inductive codes were not affected by any bias from the researcher. This enabled the identification of patterns, for insight into what would otherwise have been an unmanageable amount of raw textual data. Cross-referencing the matrices, word clouds, and word frequency charts enabled the researcher to discover the possible emergence of open codes. The word cloud, figure 5.2.2.1 below, is a visual interpretation of the dataset, showing some words emerging as frequent, by sizing those that recur more in a larger visual font:

Figure 5.2.2.1: Word cloud, showing visual interpretation of the dataset

Whilst this is a nice-to-have visualisation, it is only useful for giving headlines: quantitative representation of the qualitative data.

The same word frequency analysis task is shown in a different visual data analysis format as a word tree, figure 5.2.2.2 below (a larger scale version for readability is available in Appendix 18, below). It more usefully presents concordances/key words in relational context:

Figure 5.2.2.2: Word tree showing key words in relational context

WF-count of applications

digital	works	support	technology	online	opportuniti	areas	strategy	promotion	potential	internation	scotland	activity	media	accessibl	operation
			current	management	artistic	increase	create	years	identify	skills	sectors	tools	using	success	provide	training
		staff								team	members	social	well	youth	focus	allow
developments	audience		project	timing	approach	theatre	programme	also	creative	funds	platform	based	limited	future	part	place
		community				websites	events	consultant	help	effectively	across	establis	term	wool	deliver	ensure
	systems		business	improve	ambitions	content	resources	efficiently	including	make	capacity	impleme	clearly	integr	artworks	best
organisations		engage													data	people
	need		plans	company	change	within	arts	marketing	informatic	process	participa	learning	structur	local	enhance	productio

This introduces slightly more nuance. Words on the left hand side of the "tree" are the bigger "boughs" from which the related word branches (in the middle of the diagram) emerge, eventually spreading out to higher numbers of different word "twigs" on the right of the diagram.

The study of the visual word frequency data analysis, in the visual formats of the word tree and the word cloud, revealed a starting point for analysing what inductive codes were within the qualitative data. However, the visualisations above clearly demonstrate how words like "digital", "developments", "organisations", "works" are too broad/under-defined to be useful as codes which could usefully inform the PhD study's research questions. These single words have

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been chosen by the software to represent a number of different words, which seem (to the software) similar. In vernacular speech/written expression, or used in an idiomatic expression, the words might have very different meanings.

The word frequency count table below reveals this, figure 5.2.2.3, below (a larger scale version for readability is available in Appendix 18, below). For example, the word "developments" in the word cloud and tree (shown above) actually is a tally of the instances a number of different, but according to software related, words. The second line of the word count table below reveals that "developments" actually represents the following six different words - develop, developed, developer, developing, development, developments:

Figure 5.2.2.3: Word frequency count table

Word	Length	Count	Weighted Percentage (%)▽	Similar Words
digital	7	236	2.14	digital, digitally
developments	12	214	1.94	develop, developed, developer, developing, development, developments
organisations	13	150	1.36	organisation, organisational, organisationally, 'organisationally', organisations, organised
works	5	136	1.23	work, 'work, worked, working, works
audience	8	88	0.80	audience, audiences, audiences'
systems	7	80	0.73	system, systems
need	4	78	0.71	need, needed, needs
support	7	76	0.69	support, supported, supporters, supporting, supportive, supports
staff	5	74	0.67	staff
community	9	73	0.66	communicate, communicates, communicating, communication, communications, communities, community
engage	6	73	0.66	engage, engaged, engagement, engaging
technology	10	69	0.63	technological, technologically, technologies, technology
current	7	68	0.62	current, currently
project	7	67	0.61	project, projection, projects
business	8	65	0.59	business, busy
plans	5	65	0.59	plan, planned, planning, plans
online	6	63	0.57	online

"Developments" is given a weighted percentage by the software of 1.94%, but with the total word count of the dataset at c. 23,100 words, 214 instances counted is not almost 2% as defined by the weighting, but just 0.92% of the word total. This skews the importance of this result by amplifying its importance by over 100%, but is caused by the word 'developments' being 12 letters long, thus taking up more coverage in the dataset. So weighting is also an imprecise measure to depend on for analysis, for that reason.

Another issue noted in this study, was that the software could not analyse the meanings of the similar words in context. Although the software picked up that the words are clearly related via a root, and so categorised them together, it could not analyse the meanings of the similar words in context - whether the word is a verb, or an adjective, and even a noun. The analysis of the word count table above shows the weakness of this approach. Generally, the source of the data (the business case applications) encouraged organisations to make comments about their digital developments. Therefore, the organisations mention in particular these words in their written responses as a natural way of contextualising answers to the posed questions. "Digital" is the most frequently used word, according to the software review of the dataset, it appears 236 times. Reading the long-form business cases from each organisation though, reveals that the term "digital" is frequently used as general description. For example, see the quotes below, taken verbatim from a number of different business case applications:

> However, with such a small number of staff and each with their own allocated responsibilities - none of them entirely focussed on **digital** - a weakness

> establishing **digital** within our new structure (summer/autumn)

> embrace and understand **digital** across all aspects of Comar.

> promote a culture where **digital** is understood as vital and integral to securing success

From the quotes above, it is hard to distinguish whether the authors were actually writing about a broad range of digital tools or digital platforms, or instead were writing about something very specific: such as websites, social media, broadband connectivity, office software applications, online payment platforms, etc.

After this first study, it appeared that word frequency analysis was not a nuanced or contextualised enough method for creating codes. This was confirmed in a study of the second most frequent word, "developments". It showed a frequency count of 214 occurrences across the business case applications data set, suggesting it might be a relevant and popular code. However, the similar words the software had clustered with "developments" were not all related to "digital

development". Development, the noun describing an actual task or thing, often came up when describing a "capital development " (which, in the arts, culture and heritage sector, is commonly understood and used to describe a significant new build project). The following verbatim quotes from various business case applications below show this occurring:

> In 2010 it underwent a major Capital **Development**, improving and updating the facilities and studios

> Scottish Sculpture Workshop has undergone significant change over the last three years, from a major Capital **Development** project to new staff and programming structure

"Develop" and "developing" are uses of the word as a verb and often was used by the authors to describe general processes of developing. Again, verbatim quotes show this from various business case applications:

> new brand (opportunity to **develop** and unite sub brands)

> the arts practitioners who **develop** and deliver our programmes

> our commitment to **developing** Scotland as a centre of excellence

> **developing** this part of the course - again interlinked to the activities of Uist Wool. The CALANAS project is largely supported by the European Social Fund and will run until December 2014.

The word "developer", which had also been clustered by the software under "developments" is, in the long form reading of business case applications, used as an adjectival description of the job role of web/software developer:

> We would like to work with a **developer** to produce a Cupar Arts Festival app for mobiles

> Having a **developer** produce a Cupar Arts app for us would allow people to access the programme and locations of artworks and events in a more streamlined way

Whilst the word frequency statistics and their visualisations at first seemed like clear sources from which to generate inductive codes, they were not intelligent enough measures. The software did not understand the written language as real vernacular - it misunderstood idiomatic phrases like "developer". It did not understand culturally constructed and understood shorthand ("digital" could mean the web, websites, social media, connected to broadband, software, etc.). The word frequency count worked as a mechanism to generate descriptive statistics, but only at a generalist level. Exploring the data using the quantitative analysis tools in NVivo, such as word frequency counts, did not establish clear enough results to inductively generate codes that showed the themes and concepts that were grounded in the data. All it successfully confirmed was that all the textual data was on subject, talking about digital developments (Bazeley, 1999).

This initial inductive content analysis, using the software to generate quantitative results about the textual data, did not result in inductive codes that could be used to set the benchmark of themes, to measure against at the end of the longitudinal study. The decision was made to take on board the word frequency analysis as a triangulation mechanism for guiding a more deductive creation of codes. This initial quantitative analysis study resulted in a validity checking reference, rather than a code-creating mechanism.

5.3 Deductive code creation - a thematic analysis approach

5.3.1 A thematic analysis approach to creating deductive codes

An initial study to create codes inductively, via quantitative analysis, had achieved vague results, as reported in the last section (5.2, above). However, it is generally understood that approaches to analysis and code creation can be characterised on a continuum: from theory-building 'inductive' approaches to theoretically-driven, 'deductive' approaches. After discussing the continuum, Silver and Lewins suggest that when using Nvivo CAQDAS software to support coding creation,

most projects fall somewhere in between - i.e. employing 'abduction' (AKA 'analytic induction'). (Silver and Lewins, 2014)

Applying the notion of abduction/analytic induction was the next step of the benchmarking study. Developing theoretical codes, which conceptually connect within categories, is defined as Stage 4 of Glaser's classic grounded theory. The fourth of Miles & Huberman's steps of qualitative analysis seeks to display data and explanation (see 4.5.2, above). The blending of these two approaches is the grounded research method applied by this study, but the failure of the first quantitative study to produce inductive results meant a different approach was needed to conceptualise data segments, so that they could be categorised as codes. An analysis exercise was undertaken that created codes up-front, deductively. The codes were created via a thematic analysis.

The most prevalent themes that emerged inductively in this study's grounded theory inductive, qualitative analysis, were 'digital' and 'developments' - see 5.2, above. These themes were identified at a semantic level, and were the explicit reflection of the subject of the data - "developments", for example is c. 0.9% of the total words of the c. 23,100 word dataset. They reflected the organisations reporting and describing, via semantic and narrative content, what they hope/d to achieve - digital developments.

A thematic analysis was therefore undertaken, after the inductive data analysis had generated vague results, not clear enough to justify code generation. This was an addition to the planned data analysis strategy through a grounded approach, but a necessary step to ensure that the codes created were not just grounded in the data as proven semantically, but also grounded in the latent data. The codes needed to reflect relevant, meaningful, and useful subjects, points, and topics emerging thematically, as well as semantically, to be relevant for the research questions at both benchmarking and comparison study stages.

The themes that were deductively selected, through thematic analysis as key in the data, were driven by theoretical and analytical interests, specific to the research questions. In studying the experiences of organisations that undertook

The AmbITion Approach through longitudinally gathering their reflections and achievements, this PhD's research questions are:

- to what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?

- is new practical and theoretical knowledge generated?

- could the concepts, methodologies and toolkits be a framework for business transformation?

For an in-depth and meaningful analysis of the dataset, the researcher looked for subjects, topics, and points emerging at a latent level, beyond those which could be semantically justified (simply done through analysing quantitatively what the participant organisations had written as narrative discourse). Appendix 3 below shows the business case application form and its ten open ended questions. The themes that emerged from organisations' answers to the open questions came out verbatim in the textual data from the organisations, but were not uniformly described, as the questions did not prompt this because of their open form.

The essentialist/realist approach of thematic analysis assumed that the written language of the participants enabled them to articulate meaning, and points of view, about motivations and experiences. Searching for, and finding, repeated patterns of meaning across the broad data corpus collected from the participants, was the deductive mechanism the researcher employed to analyse and theorise the latent themes (Boyatzis, 1998).

5.3.2 Thematic analysis results in a fully structured thematic coding scheme

It was possible to generate a fully structured coding scheme via a review of the data set of phase two 2012-14 business case applications (21 applications each c. 1,100 words in length). The researcher analysed and examined underlying ideas, aims, aspirations, worries, and needs in the content of the c. 23,100 word dataset by reading it in full. A general understanding of the realistic, essential meaning of

what organisations were discussing in their texts, was formed by the researcher. The creation of codes was the result of recognising latent patterns and themes (the thematic analysis). The researcher considered the PhD study research questions, and deduced codes by noticing patterns of relevant points of view, subjects, and topics expressed by the participants throughout their data. This was achieved by the researcher being extremely familiar with the data set, which had been read in full over the past two years, and reviewed regularly as it was prepared for analysis aided by software tools.

With the PhD research questions (see 5.3.1, above) in mind, the following latent themes emerged, through the thematic analysis, as the top ten common topics, concerns, and aspirations: accessibility and legibility; adaptability; capability; capacity; clarity of strategy, vision, mission, and purpose; confidence; legitimacy; sharing practice; strengthening relationships; and transformation. Additionally, twenty four sub-themes were identified beneath the top level themes/codes. Clustered together under top-level themes (or as defined in the Nvivo software parent level codes), sub-themes (or as defined in the Nvivo software child codes), were more easily mapped to bigger concepts, formalised as parent codes, identified by the researcher. The ten high level concepts (parent codes) in turn were justified and instructed by recurring component child codes, all of which were created through the process of the latent and semantic evaluation methods of thematic analysis.

Thematic analysis is an essentialist (or realist) method: it reports experiences, meanings and the realities of participants - it works to reflect reality. Thematic analysis demands that the "themes emerging" are assumed to be explicitly, and actively, discovered by the researcher. The researcher looks at the latent meanings in the data, as well as the semantic evidence for themes which capture something important about the data, in relation to the research question; and which represent a patterned response within the dataset. The size or importance of a theme is not necessarily dependent on quantifiable measures, it is more important that it captures something "key" in relation to the overall research question(s). This is in distinction to the more passive methods that can be used in grounded

methodologies - for example discourse and narrative analysis - where phenomena/themes emerge from more passively analysing the actual semantic content, the metadata, and the contexts of the dataset. With thematic analysis, the researcher identifies patterns, subjects, topics, and points. The researcher actively selects and curates them, and then establishes them as key themes. (Braun and Clarke, 2006). For an in-depth and meaningful analysis of a data corpus containing narrative text, and verbatim quotations from rich media case studies, the thematic analysis looked for subjects, topics, and points emerging at a latent level, beyond those which could be semantically justified (simply done through analysing quantitatively what the participant organisations had written as narrative discourse).

The topics, aspirations, subjects, issues, hopes and fears included in the parent and child code definitions are explained below, presented in table format for ease of reading in Figure 5.3.2.1:

Figure 5.3.2.1: The topics, aspirations, subjects, issues, hopes and fears included in the parent and child code definitions
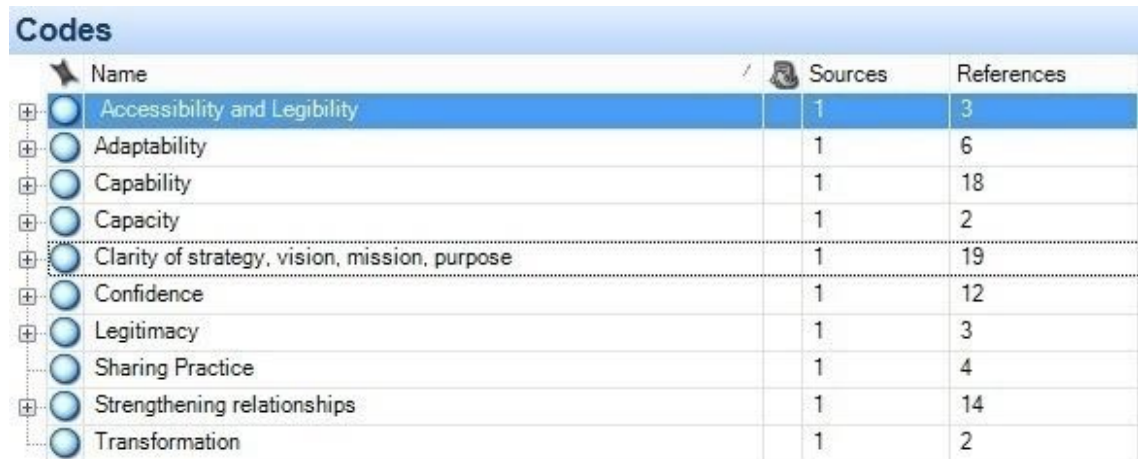
Codes	Topics, aspirations, subjects, issues, hopes and fears included in code definitions
Accessibility and Legibility	**Engaging accessibly with customers, and being understood by them online**
Being responsive	Being in dialogue with customers through online platforms - responding to comments, queries, reviews
Communicating why, how, who, and what	Being readable, presenting what the organisation's products, services, experiences are
Communication channels for conversation	Social media platforms, web presence
Keeping pace	Ensuring all digital channels and platforms are up-to-date for the digital devices and expectations of customers.
Network building	Online network creation - with stakeholders, partners, customers
Adaptability	**Responsiveness of the organisation to new digital opportunities and threats**
Agility	How rapidly can the organisation experiment, prototype, try new ideas out
Data analysis	Big data, using customer and ticketing data to inform decision making
Learning quickly	Learning from customer feedback, learning from experimentation
Capability	**How able and skilled or capable is the organisation digitally**
Mobile	Mobile platforms and devices as an opportunity for developing capability
More sales	Digital sales enabling more income and data, so impacting the organisation's customer and business development capability
New skills for staff	Staff skills, volunteer skills to ensure in-house digital capability
Capacity	**The time, capacity, space the organisation has for digital development**
Expand collaboration opportunities	Building capacity through partnerships and collaborations
Introduce new operational systems	Implementing new digital systems for improving operational capacity
Organisational efficiencies	Implement new digital systems fo making time or productivity efficiencies and reducing costs
Clarity of strategy, vision, mission, purpose	**The organisation's understanding of its own unique qualities and what it is for and whether that is communicated with integrity online**
Access expertise and advice	Seeking an external perspective and support to help clarify, help organisation navigate and define what it does in a digital landscape too
Need examples of good practice	Seeking examples from other organisations with similar product or service or experience, or of similar scale or operating model
Confidence	**The organisation's ability, preparedness, and openess to risk**
Create new products	Developing new digital products (or services or experiences)
New business models	Developing new income generation streams using digital technologies
Rapid Prototyping	Developing and testing new ideas with customers, improving the ideas following feedback from the market
Legitimacy	**The organisation's gravitas, influence or power, and integrity online**
Encouraging participation &or action	Customers, audience responding to calls from the organisation because they believe in it and want to participate as community
Openness & transparency	The extent to which the organisation should be transparent or open online
Sharing Practice	**Organisations being open enough online to be sharing practice, learning, advice, contacts, methods - with some or all stakeholders**
Strengthening relationships	**Organisations using digital channels to strengthen important relationships**
New stakeholders or partners	Using digital tools to strengthen relationships with collaborators or other stakeholders and partners
New users or audience	Using digital tools to strengthen relationships with customers
Transformation	**Organisations being prepared to completely change and transform what/how they do things to be a digitally enabled business**

5.3.3 Themes become codes in the NVivo software

The latent themes that emerged enabled a thematic framework for reviewing the dataset via the NVivo software. The data was coded-up by the themes, which

became the top level parent codes, as can be seen in the screenshot, figure 5.3.3.1 below, from the Codes view in the software:
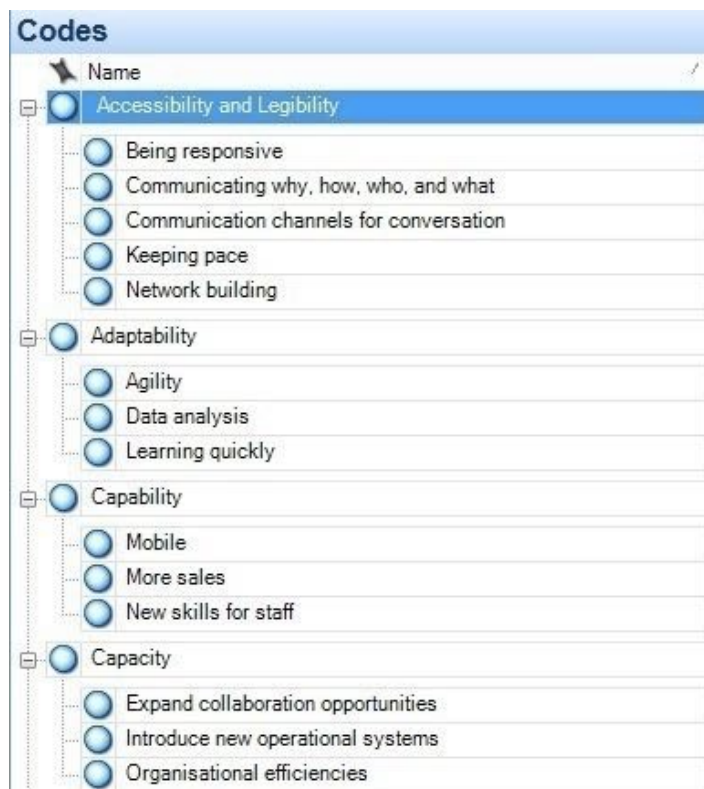
Figure 5.3.3.1: Top level parent codes

Name		Sources	References
Accessibility and Legibility		1	3
Adaptability		1	6
Capability		1	18
Capacity		1	2
Clarity of strategy, vision, mission, purpose		1	19
Confidence		1	12
Legitimacy		1	3
Sharing Practice		1	4
Strengthening relationships		1	14
Transformation		1	2

A series of child codes were also established, relevant to each of the parent topics. In this way, a structured coding scheme was generated to apply to the entire data corpus. These can be viewed in the open file/tree view of the codes in Nvivo, figure 5.3.3.2 below:

Figure 5.3.3.2: Child codes shown in the file/tree view

Codes

Name

- **Accessibility and Legibility**
  - Being responsive
  - Communicating why, how, who, and what
  - Communication channels for conversation
  - Keeping pace
  - Network building
- **Adaptability**
  - Agility
  - Data analysis
  - Learning quickly
- **Capability**
  - Mobile
  - More sales
  - New skills for staff
- **Capacity**
  - Expand collaboration opportunities
  - Introduce new operational systems
  - Organisational efficiencies

Codes

Name

- **Clarity of strategy, vision, mission, purpose**
  - Access expertise and advice
  - Need examples of good practice
  - Rapid Prototyping
- **Confidence**
  - Create new products
  - New business models
- **Legitimacy**
  - Decentralising decisions
  - Encouraging participation &or action
  - Openness & transparency
- **Sharing Practice**
- **Strengthening relationships**
  - New stakeholders or partners
  - New users or audience
- **Transformation**

Relevant text showing evidence of the parent and child themes was coded up across the dataset, ensuring the patterns of themes could be analysed. Coding was applied within the Nvivo software programme, so codes were mapped against each other and across organisations, as well as aggregated together (child codes would be counted underneath parent codes), to show frequency of code occurrence. During this process, a few of the code definitions needed to be

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tightened-up. For example, the child code "keeping pace" replaced the initial child code definition "being seen as irrelevant". "Being seen as irrelevant" was the definition chosen by the researcher, but in each instance when the code was applied to the data, it was usually contextualised by the organisation in a more positive framing. Therefore, the negative theme of "being seen as irrelevant" was unfair. The text itself inductively suggested the "keeping pace" code definition, as can be seen below, figure 5.3.3.3, from the data:

Figure 5.3.3.3: "Keeping pace" code emerges from the data

As can be seen from the coded data above, the organisation National Youth Choirs of Scotland (NYCoS) defined itself as having "not kept pace", and Street Level Photoworks (SLP) describe their organisation in their own words as being "held back from maximising it's [sic] online impact by an outdated system". The code 'keeping pace' more adequately summarised both these comments, and so that became positive in purpose. Additionally from the screenshot above, we can see that 2 references have been coded across the dataset of c. 23,100 words, the phrases highlighted above as Reference 1 and Reference 2. These phrases total 62 words, and the software calculates that the 2 references coded, the 62 words, are

equivalent to 0.20% coverage within the dataset. Quantising the qualitative data easily via the software gives the researcher an easy way to justify the codes - a clear indication of popular or salient themes is how much coverage they had within the dataset. Coding up the business case applications that organisations proposed for why they should undertake *The AmbITion Approach,* enabled the oversight of what the main latent themes were. This enabled the analysis of the aspirations, preoccupations, and issues of organisations at the beginning of their digital development journeys, to set a benchmark.

The next section presents the detailed results of the coding, to establish a benchmark of organisations' needs, aspirations, subjects and topics from across the business case applications dataset.

5.4 Results of the benchmarking study

5.4.1 Applying the codes of the deductive thematic analysis to the data

Coded data could be retrieved in many ways using the tools of the NVivo software. Opening a code by double-clicking it provided all references so far coded across all Sources - a horizontal cut through the data. Coding stripes could also be viewed simultaneously in a right hand column, providing a vertical cut, which showed the position of the code application throughout the sequence of the Source. This can be seen in figure 5.4.1.1, below:

Figure 5.4.1.1: Coded data shown as a horizontal cut

Nodes
- Nodes
  - Codes
  - Respondents
  - Themes
  - Relationships
  - Node Matrices

Sources
Nodes
Classifications
Collections
Queries
Reports
Models
Folders

Codes

Name
- Accessibility and Legibility
- Being responsive
- Communicating why, how, who, and what
- Communication channels for conversation
- Keeping pace
- Network building
- Adaptability
- Agility
- Data analysis
- Learning quickly
- Capability
- New skills for staff
- Mobile
- More sales
- Capacity
- Expand collaboration opportunities
- Introduce new operational systems
- Organisational efficiencies
- Clarity of strategy, vision, mission, purpose
- Access expertise and advice
- Need examples of good practice
- Rapid Prototyping
- Confidence

Accessibility & Legibility in appl

<Internals\\Applications\\Ambition approach apps> - § 65 references coded [9.96%

Reference 1 - 0.20% Coverage

clarify how we manage and what we are communicating through our digital content.

Reference 2 - 0.12% Coverage

There is a clear need for new methods of using our digital content - both in how we use and access ou digital content, but also the systems and tools we use internally for managing data, projects and arch

Reference 3 - 0.23% Coverage

There has been, and is still, a limitation to our online digital development due to our rural location and connection. Therefore it is even more imperative that the way in which we utilise our digital content is possible, and our online presentation of the organisation is cohesive and current. This is particularly a our audience is remote and the majority of our primary contact happens online

Reference 4 - 0.10% Coverage

with the organisation mission and programming becoming established it is apparent that the area tha the organisation at present is the management of its digital content

Reference 5 - 0.13% Coverage

Issues of connectivity, procedures, archives, transferring data, and online platforms have become on discussion in the office, but while it has become a natural focus without the dedicated expertise we ar forward

Reference 6 - 0.14% Coverage

Finally, in the area in which we expand below, we wish to enhance greatly our expertise in using digit our work, to communicate with customers, to establish virtual communities of practice and to support projects.

Summary Reference Dataset

Coding Density
Organisations
Keeping pace
Communication channels for conversation
Communicating why, how, who, and what
Network bu

Birds of Paradise Theatre
Comar

Setting up the software correctly with the data was essential to being able to generate query results that had value. The 21 organisations were added and classified as Respondents within the Nodes folder of the software (nodes are positions in the database where codes that conceptualise data are stored, so for matrix queries, Respondents needed to be treated as Nodes, as well as codes). This was to allow a matrix analysis of codes in all the dataset, and across an individual organisations' data, as figure 5.4.1.2 shows:

Figure 5.4.1.2: Organisations set up as Respondents within Nodes in the NVivo software
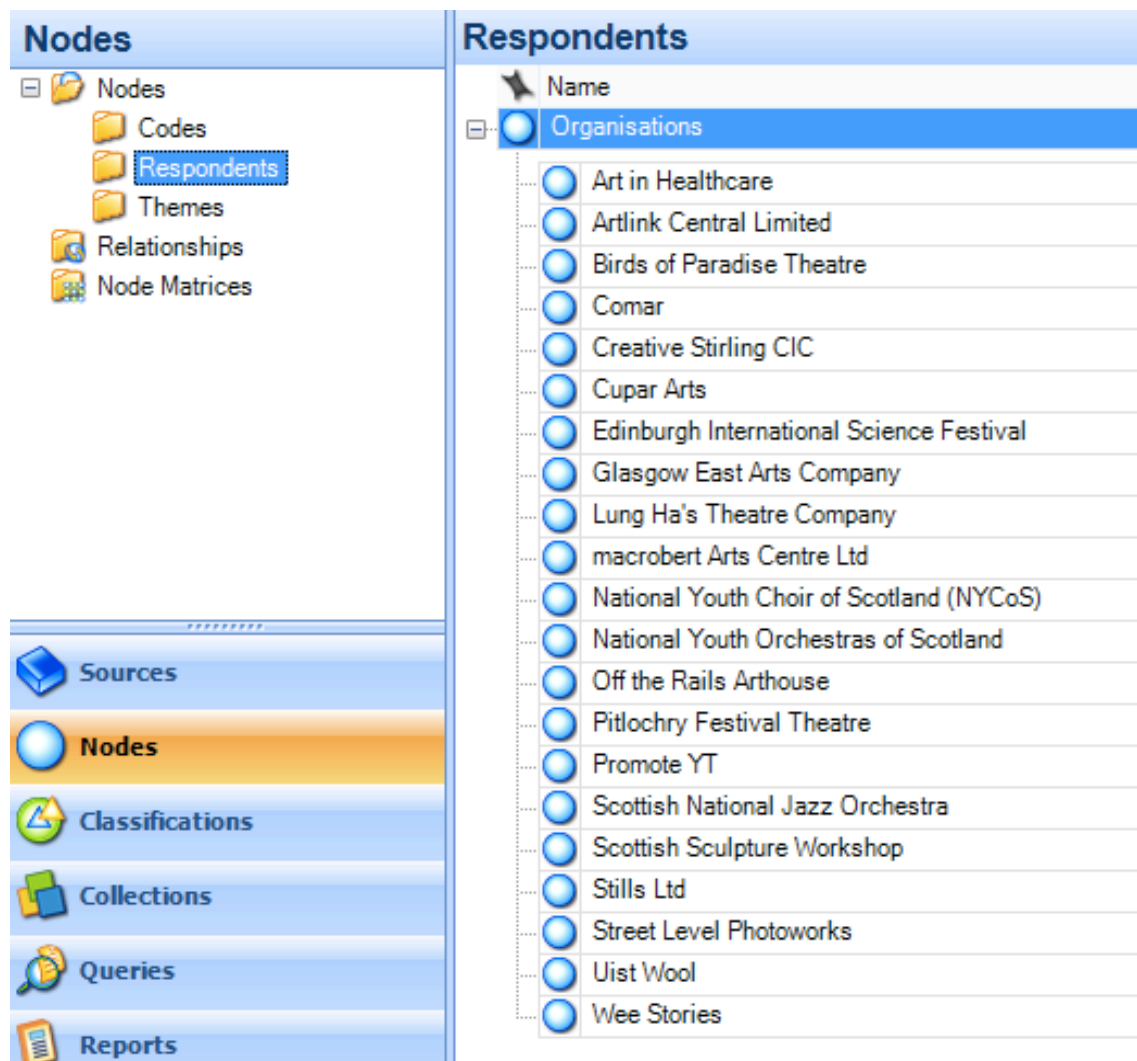
Classifications is a part of the NVivo software designed to store factual information about data and respondents. As respondents were being treated as Nodes, the classifications of type of organisation, staff size, and case study format were added at this stage. These were known characteristics. Although sample sizes of organisations are small and the aim of the study is not to make general statements about the wider sector, taking account of these characteristics, and exploring data according to them is a valuable analytic task. Utilising Classifications enabled the analysis of the dataset by code and type or size of organisation, as figure 5.4.1.3 shows below, and this has use in a longitudinal study, such as the PhD enquiry.

Figure 5.4.1.3: Node classifications of the organisations
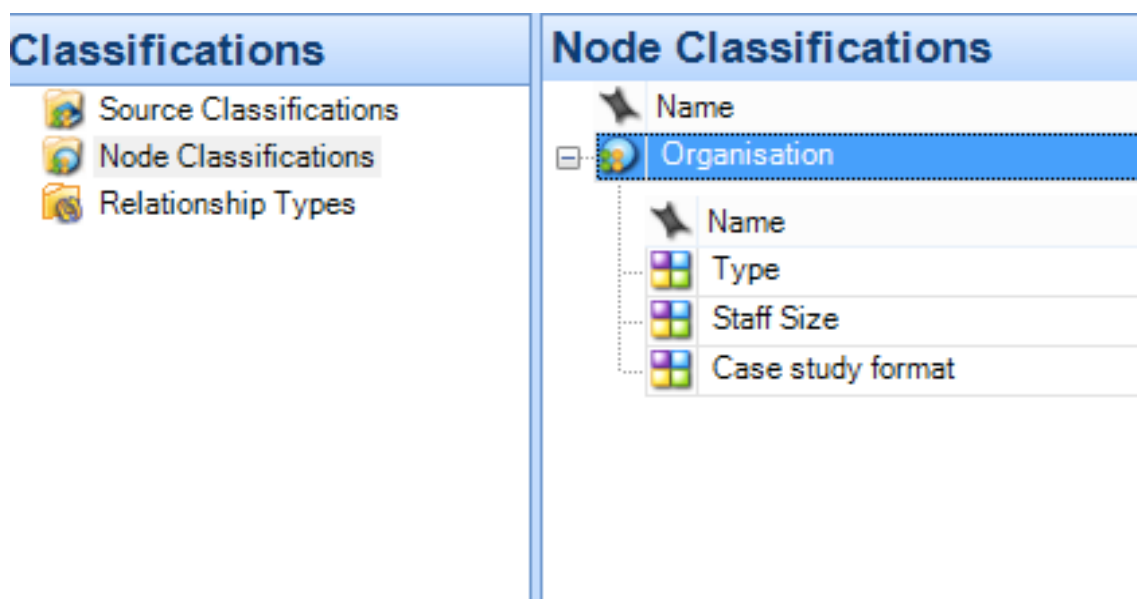

The sources, nodes and classifications were the building blocks within the NVivo software, which would enable quick data analysis of codes to establish a benchmark. Queries were formulas created by the researcher within the software as ways of interrogating, cutting, exploring, and visualising the data stored as Sources, Nodes, Respondents and Classifications.

5.4.2 Simple Coding Queries to interrogate the dataset

Coding Queries retrieved references based on the presence, absence, and relative occurrence of codes. Simple Coding Queries facilitated questioning about how

the dataset had been coded, enabling the retrieval of data coded at an individual code. See figure 5.4.2.1 below (and in larger scale for readability in Appendix 18, below), showing the Capacity code, as a list of 47 individual references. A total of 6.67% coverage across the dataset of c. 23,100 words, so around 1540 words in total were coded at capacity:

Figure 5.4.2.1: Review of the Capacity code
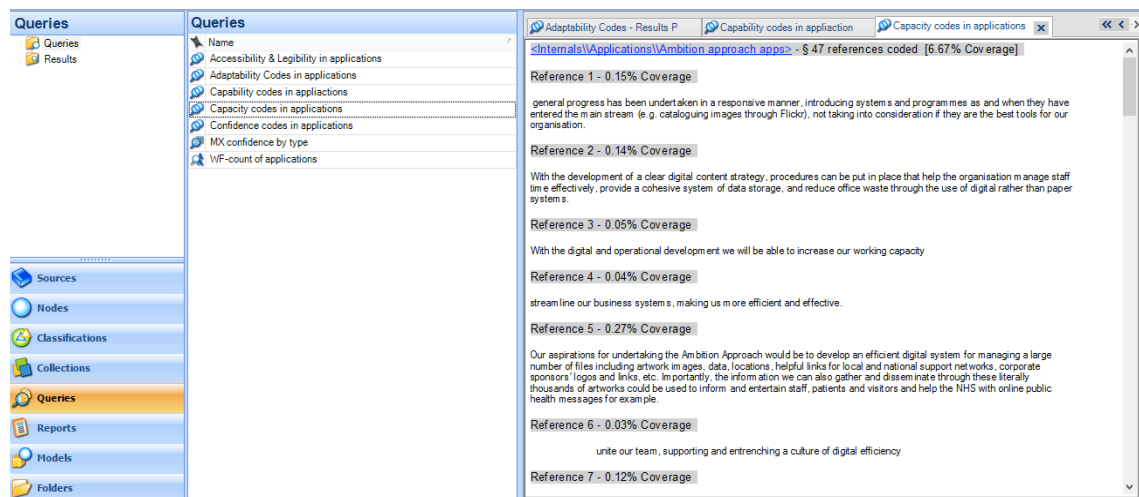
The density of some topics across the dataset, and the rareness of others, stood out immediately with Simple Coding Queries, as the overview, figure 5.4.2.2 below (and in larger scale for readability in Appendix 18, below), of references coded, shows:

Figure 5.4.2.2: Overview of density of reference coded in the business case applications dataset
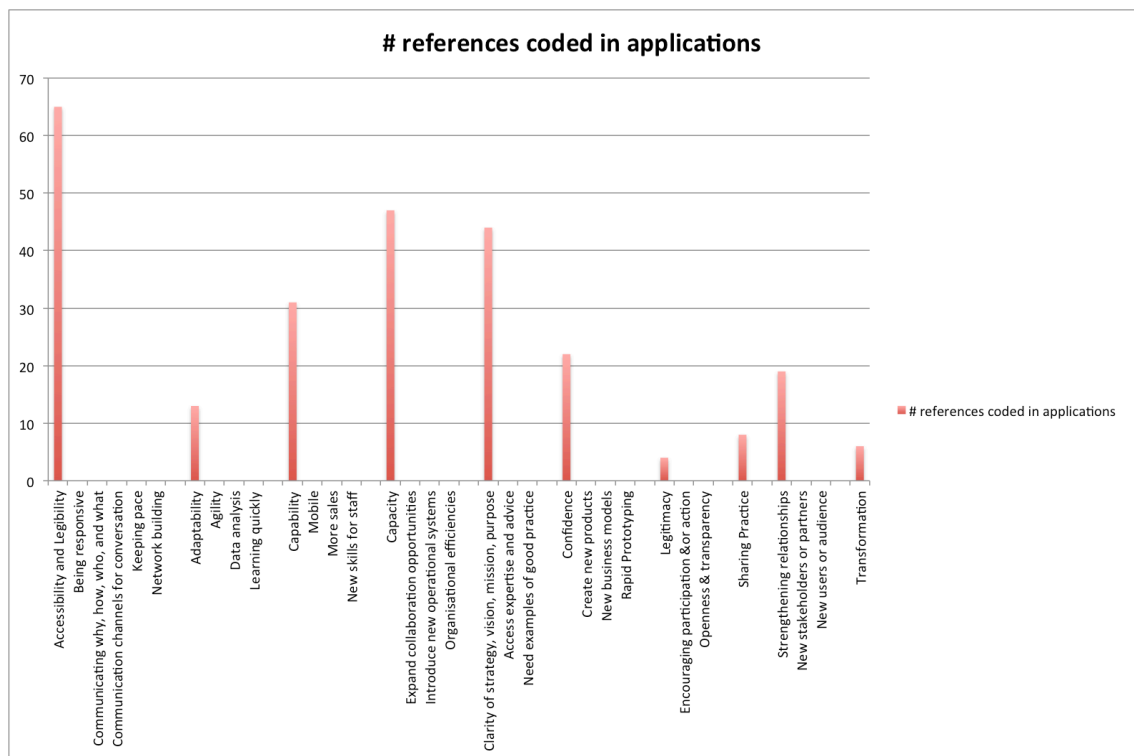
The most coded reference was Accessibility and Legibility, with 65 instances (9.96% coverage, c. 2,300 words) in the business case applications dataset. This parent code included the component child codes:

- Being responsive
- Communicating why, how, who and what
- Communication channels for conversation
- Keeping pace
- Network building

Organisations were particularly concerned to digitally develop to improve their digital Accessibility and Legibility. This set of parent and child codes reflected the desire organisations had to engage with, and be understood by, customers online. These are just a few examples of the verbatim business case application texts coded at Accessibility and Legibility:

> it is even more imperative that the way in which we utilise our digital content is as streamlined as possible, and our online presentation of the organisation is

cohesive and current. This is particularly a concern when much of our audience is remote and the majority of our primary contact happens online

and,

how we can utilise digital technologies to improve and develop our organisational efficiency and proficiency, and our online promotion, communication and engagement with audience, participants and artists

The least coded reference was Legitimacy, with just 4 instances (0.72% coverage) in the initial business case applications. This parent code included:

- Encouraging participation and/or action
- Openness and transparency

Relating to the organisations' gravitas, influence or power or integrity online, the desire to improve Legitimacy was only expressed by a few organisations. This organisation for example, expresses its need in relation to improving Legitimacy through digital development:

A need for a greater online presence with joined up systems that are interactive, open and transparent to help engage better with the existing audiences and help to grow target market access.

The second highest coded reference was Capacity, with 47 instances (6.67% coverage of the applications dataset) including child codes: expand collaboration opportunities; introduce new operational systems; and organisational efficiencies). Many organisations wanted to improve the efficiency of the time eaten up, cash resource spent, and space their organisations filled with analogue, non-digital systems. They aspired to improving digital capacity by utilising digital tools to develop more in-house capacity for creating further digital developments. This organisation's expressed need is a typical example:

With the development of a clear digital content strategy, procedures can be put in place that help the organisation manage staff time effectively, provide a cohesive system of data storage, and reduce office waste through the use of digital rather than paper systems.

The third highest coded reference was Clarity of Strategy, Vision and Purpose, with 44 instances, but a high 9.27% coverage score within the dataset. The code included the child codes: access expertise and advice; and need examples of good practice. Organisations expressed a desire to ensure that they understood their own unique qualities within a digital landscape, and that those qualities were reflected with integrity online. Organisations clarified explicitly that they thought they needed external support from other organisations, and from external consultants, to achieve this. The high coverage of 9.27% to 44 references coded make this the code with the longest phrases coded as one instance. For example, one organisation states using 47 words:

> it became quickly apparent that the areas for development are potentially infinite, but finding a clear path forward with support of dedicated expertise, that all the staff can be introduced to and engage with, would enable us to collectively focus our energies in the best possible way.

And another states, more succinctly with 23 words:

> We don't currently have the resource in-house to develop a digital strategy so would benefit hugely from external expertise in this area.

At the median point, with 31 instances (2.92% coverage) occurring, was the coded reference Capability (including child codes mobile; more sales; and new skills for staff). Organisations were hoping to become more able, skilled and generally digitally capable. One expresses these hopes, to:

> build our skills to create digital content and systems which are a leading example in terms of inclusivity for people with a learning disability. Our ambition is to create a website and develop skills so that Company Members and audiences with learning disabilities can engage with us through digital media with a sense confidence and ownership.

Confidence (including child codes create new products, new business models, and rapid prototyping) was coded as a reference 22 times (2.86% coverage in the dataset of applications). Reflecting organisations' ability to take on risk and their preparedness and openness to risk, one organisation divulges the following hope, to:

create an environment of savvy, confidence and digital prowess, to support greater financial resilience.

Strengthening Relationships was coded as a reference similarly at 19 instances, with 2.88% coverage (including child codes new stakeholders or partners; and new users or audience). Organisations often expressed the desire to use digital channels, content and devices to strengthen important relationships. This organisation for example explains that it wants to:

> motivate and inspire at a number of levels: internally as well as externally to appeal to a wider constituent of artists and audiences.

Adaptability (including child codes agility; data analysis; and learning quickly) was less coded as a reference with 13 instances, with 1.39% coverage across the dataset. At this stage of beginning digital developments, organisations were apparently less concerned about how they would build capacity to deal with new digital disruptions. The prevalence of other codes such as Accessibility and Legibility, and Capability, prove that at the beginning of undertaking *AmbITion Approach* change journeys, organisations were more concerned with building up competence with already established digital technologies (like websites, social media, CRM systems, etc.). However, even at this early stage, a few organisations expressed positivity around building adaptation skills, for example one states:

> we hope to utilise the system in much more effective ways which would include better analysis of the information gathered (eg Google Analytics) to; help us better understand our audience, to engage the audience more effectively and provide more valuable information through each artwork webpage to the viewers, to data-mine and capture stats to add to an evidence base to improve art collections, to better serve our partners and stakeholders, etc.

Stand-alone parent codes with no child codes, were coded minimally in the business case applications data set. Sharing Practice - the activity of being open enough online to share practice, learning, advice, contacts, methods with some or all stakeholders - was coded just 8 times, with a total of 0.73% coverage across the dataset. An example of one organisation's aspiration, to:

motivate and inspire at a number of levels: internally as well as externally to appeal to a wider constituent of artists and audiences.

Transformation was coded just 6 times in the business case applications data set, with coverage of 0.80%. At this stage, at the beginning of a change journey, few organisations were explicitly expressing their desire to completely change and transform how or what they do to become a completely digitally enabled business. Here are a few examples from organisations open to the notion of transformation:

> Lung Ha's Theatre Company is prepared to take on radical structural change in order to benefit the future of the organisation. The organisation has proved it is open to change, is adaptable and has undergone considerable organisational reconfiguration in recent years.

and,

> The aim with this project is to move forward from down-sizing to look at right-sizing and at how the organisation can adapt to find a model which enables it to be resilient, stable and yet flexible enough to cope with a future which remains uncertain.   Technological developments can potentially help us to be more flexible and efficient as an organisation

The frequency levels of codes appearing showed how often that topic was mentioned in the business case applications, and so gave insight into the issues and aspirations organisations had, in relation to digital development. Being accessible and legible (or readable/understandable) to customers, and being able to clarify strategy, vision, and purpose were the highest concerns as confirmed by the levels of coded instances. The desire to extend capacity emerged also as a common issue. Growing capability, and confidence, and strengthening relationships, were secondary issues and aspirations, but at a median point can still be counted as consistent concerns. Adaptability, sharing practice, and transformation, were aspirations shared by fewer organisations. The desire to see these practices emerge was more unusual: but they are more challenging to achieve in an organisation with existing practices and models.

5.4.3 Results of Advancing Coding Queries for investigating patterns

Advanced Coding Queries were also used to investigate patterns. They were programmed in order to provide more sophisticated options for investigating relationships, according to how data had been coded. For example, searches for where patterns of two codes co-occurred in the data were made. A range of Boolean (OR, AND, NOT) and proximity (NEAR, PRECEDING, SURROUNDING) operators were available to choose from.

There were 22 instances of organisations simultaneously mentioning the need to build capacity, together with building confidence, or capability, for example:

> Ultimately we aim to be able to stream certain aspects of our work which could provide a model for "digitally touring" work to audiences far beyond our reach [CONFIDENCE]. In order to achieve this aim, we realise that we need to build our capability [CAPABILITY] and resource in-house [CAPACITY],

and

> By improving efficiency, communication and hopefully sourcing new income streams [CAPACITY & CAPABILITY] this will provide a solid foundation for our ambitious artistic plans in the years ahead [CONFIDENCE].

However, this type of query did not reveal many more instances of co-occurence of codes, due to the large amount of textual data (c. 23,100 words) coded.

5.4.4 Results of Matrix Queries for qualitative cross-tabulations

Matrix Queries were more useful investigations, made to explore patterns in the coding. Coding could be compared according to various criteria. Qualitative cross-tabulations, could be created for example, querying how the confidence code appears across different characteristics of organisations, such as type of organisation and scale of respondent organisation (e.g. comparing visual arts organisations to performing arts to festivals, etc.). The NVivo screenshot, figure 5.4.4.1 below (and in larger scale for readability in Appendix 18, below), shows this matrix query:

Figure 5.4.4.1: Results of a matrix query to show patterns in the codes
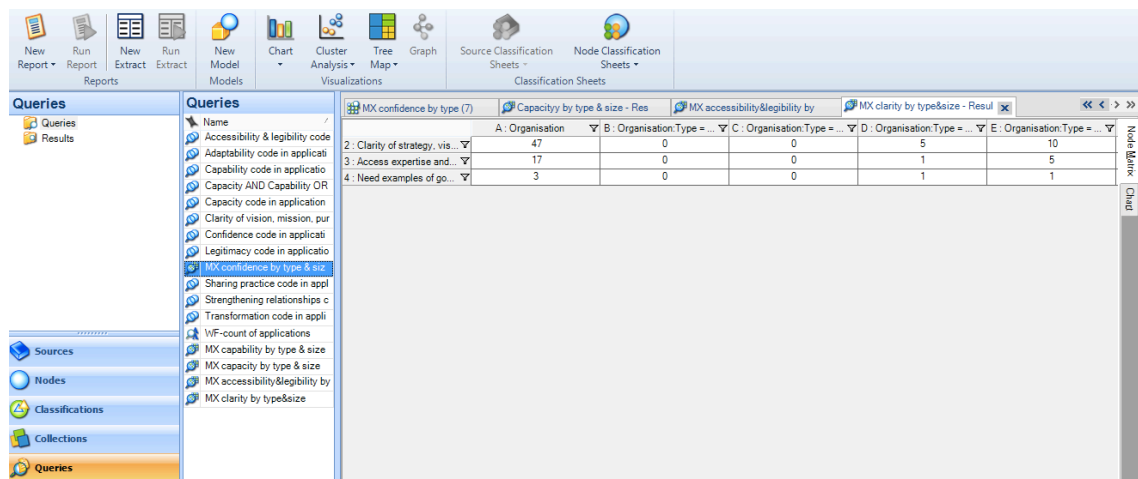
This analysis, when exported into Excel, produced an easier to review matrix, showing instances of coding at the parent code (Confidence, colour coded in grey), and then a break down at child code level too (Create new products, new business models, and rapid prototyping):

Codes	Visual Arts	Community arts	Arts centre	Theatre company	Orchestra	Festival	Choir	Size = Under 10	Size = 10-30	Size = 30+
1 : Confidence	5	3	3	3	5	0	3	17	5	0
2 : Create new products	1	1	0	1	3	0	0	6	0	0
3 : New business models	3	2	3	2	1	0	3	10	4	0
4 : Rapid Prototyping	0	0	0	0	0	0	0	0	0	0

Growing in digital confidence was mentioned as an aspiration seventeen times in micro-enterprises with a staff size of under ten, and five times in organisations with a staff size of ten - thirty. No organisations at this stage in the study had a staff size over thirty.

Developing new business models and new products was the focus of needing to build confidence, within microenterprises (size = under 10). Organisations with a staff size of 10-30 were not interested in new products, only new business models. In terms of type of organisation, the visual arts, arts centres, and choir organisational types were particularly interested in seeing new business models introduce change to enable digital resilience. Coded data brings up the following instances of evidence for this, with arts centres wanting to, for example:

support our three core business aims artistically, educationally and financially.

create an environment of savvy, confidence and digital prowess, to support greater financial resilience

Greater understanding and awareness of the potential of online platforms for our work with a strategy and action plan to develop this. With limited broadband on Mull this is challenging but we must reach out to a wider audience and understand that physical touring is not the only way to do this.

Choirs also wanted to develop new business models, and the following evidential data is drawn out of their business case applications:

By improving efficiency, communication and hopefully sourcing new income streams this will provide a solid foundation for our ambitious artistic plans in the years ahead.

We also hope our AmbITion Approach may generate ideas for new income streams.

NYCoS must exploit digital technology to increase capacity, generate additional income and reach new audiences.

Querying the Capacity code cross-referenced with organisational type and scale, produced the following results:

Codes	Visual Arts	Community arts	Arts centre	Theatre company	Orchestra	Festival	Choir	Size = Under 10	Size = 10 -30	Size = 30+
1 : Capacity	12	12	5	8	4	2	4	34	13	0
2 : Expand collaboration opportunities	1	0	0	3	0	0	0	3	1	0
3 : Introduce new operational systems	6	9	4	2	0	0	1	16	6	0
4 : Organisational efficiencies	5	2	1	2	4	2	3	13	6	0

Visual arts, community arts and theatre company organisation types expressed the most aspiration to develop digital capacity, but this was because there were more of these types of organisation, and therefore more data that could be coded.

Nuances do appear though, through this analysis. Community arts organisations in particular wanted to be able to introduce new operational systems, with this also being important to visual arts, and arts centre organisations. This could be

explained by these organisations historically having less control over investment made in the operational systems they work with. Community arts organisations are often volunteer run, and so do not invest much in operations; arts centres and visual arts organisations are often council run, and often linked into the council's proprietary or existing systems. (These often are chosen for their ability to work for their sports centres, usually a larger number of venues than arts venues in a local authority).

Developing digitally to achieve organisational efficiencies was a key aim of choirs, festivals, and orchestras: this could be explained by considering what these types of organisation have in common - they are likely not to be working out of/in a single venue, so digital organisational efficiencies are important to support those organisations that work more "virtually" by nature.

The Capability code cross-referenced with organisational type and scale also revealed more nuances in aspiration:

Codes	Visual Arts	Community arts	Arts centre	Theatre company	Orchestra	Festival	Choir	Size = Under 10	Size = 10-30	Size = 30+
1 : Capability	2	7	9	5	4	4	0	27	4	0
2 : Mobile	0	1	3	0	0	3	0	6	1	0
3 : More sales	1	2	3	0	1	0	0	5	2	0
4 : New skills for staff	1	3	3	5	3	1	0	15	1	0

Here, the sharing of coding instances regarding the aspiration of increasing capability digital development showed that theatre companies wished to develop capability solely through the new skills development of staff. Coded instances in theatre companies' business cases state:

> build the skills and capacity of Promote YT for ongoing digital development.

> Staff have limited knowledge of digital technology and have not been using digital technology to its full potential.

Similarly, orchestras saw new skills development of staff as key, but also aspired to developing more sales digitally. Interestingly, the choir had no data coded with capability, suggesting that there was in-house ability already.

The Clarity of strategy, vision, mission and purpose code again saw community arts, arts centres, and festivals aspiring to seek expertise and advice about digital development in order to help them clarify strategy, vision, mission, and purpose:

Codes	Visual Arts	Community arts	Arts centre	Theatre company	Orchestra	Festival	Choir	Size = Under 10	Size = 10 -30	Size = 30+
Clarity of strategy, vision, mission, purpose	5	10	7	11	3	4	4	33	11	0
Access expertise and advice	1	5	4	2	1	3	0	11	5	0
Need examples of good practice	1	1	0	0	1	0	0	3	0	0

Community arts organisations and arts centres specifically wanted to access expertise and advice to support them - probably because of the unique characteristics mentioned before. (Community arts organisations are volunteer led, so do not have much chance to strategically develop, and arts centres are council-run, so do not get full autonomy over their own strategic development). Their business case applications contained statements evidencing this, such as:

> we wish to access expertise, advice and support, to make sure we reach the right people and meet their needs.

> Engage with specialist advisors who can assist us in planning digital development that matches our vision for the business.

> We need industry experience and support for our young technologically literate team to maximize [sic] the digital opportunity.

The analysis also revealed that the majority of theatre companies expressed the desire to develop Clarity of strategy, vision, and mission in relation to digital - but more generally and less specifically. It is noteworthy that business case applications of theatre companies were coded at the parent code rather than child codes, reflecting a general desire to clarify strategy. For example:

> With the new creative team in place the time is right to undertake a review of our digital and organisational development as there is a renewed energy and embracing of change.

> To assist Pitlochry Festival Theatre in developing its first digital strategy.

to explore digital development within the organisation more broadly, not just focusing on one specific area or department.

Wee Stories is currently undertaking an organisational development process. The aim is to find an organisational model that enables the company's vision, while being financially sustainable.

Given we are due to receive our feasibility study and are currently preparing our Strategic Business Plan, it makes good sense from a timing point of view to focus on a digital strategy for the organisation. We have delivered some ad-hoc digital projects in the past and are currently expanding our digital output but aspire to be more strategic in our approach moving forward.

On the basis of this evidence, it can be argued that theatre companies are the type of cultural organisation most open to completely re-imagining their models of operation, practice, and business. This could be explained by the success that internationally recognised theatres have had with digital developments (for example, The Royal National Theatre's successful digital development NTLive,[68] or the National Theatre Scotland's award-winning entirely online Five Minute Theatre)[69].

Finally, querying the most popular code, Accessibility and Legibility, revealed again nuances by type of organisation, when analysing the instances of child codes. Half of the instances of data coded to accessibility and legibility which appeared in the results of visual arts and arts centres, was down to the instances of the code "keeping pace":

Codes	Visual Arts	Community arts	Arts centre	Theatre company	Orchestra	Festival	Choir	Size = Under 10	Size = 10 -30	Size = 30+
1 : Accessibility and Legibility	12	9	14	19	5	4	2	47	18	0
2 : Being responsive	0	0	0	0	0	0	0	0	0	0
3 : Communicating why, how, who, and	3	2	4	3	3	0	0	12	3	0
4 : Communication channels for convers	3	2	1	6	1	1	1	11	4	0
5 : Keeping pace	6	2	7	5	0	1	1	14	8	0
6 : Network building	1	4	2	4	1	2	0	10	4	0

It can be concluded that the major preoccupation of visual arts and art centre organisations was ensuring they kept pace digitally: they may be particularly sensitive to keeping pace, as this organisation type typically has venues to look

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[68] See http://ntlive.nationaltheatre.org.uk , last accessed 19.08.14.

[69] See http://fiveminutetheatre.com/, last accessed 19.08.14.

after (property overhead which demands financial commitment, perhaps leaving less for new channels, such as digital). Other types of organisation in the study such as choirs, festivals, and orchestras had more major preoccupations with developing operational efficiencies using digital tools. Perhaps because they can focus on this, as they do not have to worry about investing in physical facilities.

Theatre companies were also worried about digitally keeping pace, and this echoes the earlier findings - that they were preoccupied with developing new skills in digital for staff. As can be seen from the data from theatre companies coded at communication channels for conversation, shown below, they are primarily occupied with how they will engage audiences in digital communication (and so probably need to increase staff skills in digital communication to achieve this):

how we can utilise digital technologies to improve and develop our organisational efficiency and proficiency, and our online promotion, communication and engagement with audience, participants and artists

a desire to engage further with our audience & participants by creating accessible, interesting and relevant digital content. There is a desire to understand who our audience are & identify the most effective way for us to engage & communicate

and transform the form and content of our delivery and external communications.

a central live discussion forum for post-project/performance feedback and analysis

we have already identified opportunities, particularly around social media

be a leading example of how to open up digital communications to give people with learning disabilities the best possible opportunity to engage with our work through digital media.

As can be seen from above, the content coded "communication channels for conversation" within the business case applications of theatre companies, revealed that theatre companies particularly aspired to develop digital communication channels. The channels would facilitate conversation and

engagement opportunities for the theatre companies to engage with stakeholders, participants, and audiences, for gathering feedback, and for encouraging virtual participation in projects.

In relation to the first research query of the PhD enquiry, to what extent:

- may enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies,

this study presents a benchmark, a baseline describing where organisations were at, what their aspirations and hopes and preoccupations were, at the beginning of their *AmbITion Approach* change journeys.

5.5 Conclusion

It has been possible to establish a benchmark of the change aspirations of twenty one organisations at the beginning of that journey, by collecting data about the the organisations' starting point situations, via the research instrument of the business case application which was embedded within *The AmbITion Approach*.

The mixed methods study to achieve this baseline was undertaken through a grounded theory approach, specifically utilising thematic analysis. CAQDAS softwares NVivo 10 and SNAP online survey software facilitated the quantitative and qualitative analysis of a large textual dataset of c. 23,100 words. Coding with NVivo enabled the analysis of the latent themes, through simple queries of parent codes and the child codes clustered beneath them. Advanced coding queries showed patterns of co-occurrence, and matrix queries allowed further nuances to emerge, showing the differences in digital development aspirations between types of organisation. The aspirations and preoccupations revealed in the study of the business case applications became the benchmark of where organisations were, at the beginning of their digital development journeys.

A thematic analysis was undertaken, after the inductive data analysis had generated vague results not clear enough to justify code generation. Thematic analysis ensured that the codes created were not just grounded in the data as proven semantically, but also grounded in the latent data, of the meaning emerging. The codes reflected relevant, meaningful, and useful ideas, topics, and subjects – emerging both thematically and semantically. The coding enabled an in-depth organising, and evaluating, of the organisations' digital development issues, hopes, fears, and preoccupations. It revealed the topics and subjects and ideas they had as aspirations to address at the beginning of their change journeys.

The frequency levels of codes appearing, through simple coding queries, showed how often that topic was mentioned in the business case applications. This gave insight into the issues and aspirations organisations had, in relation to digital development. Being accessible and legible (or readable/understandable) to customers, and being able to clarify strategy, vision, and purpose were the highest concerns as confirmed by the levels of coded instances. The desire to extend capacity emerged also as a common issue. Growing capability, and confidence, and strengthening relationships, were secondary issues and aspirations, but at a median point can be counted as consistent concerns. Adaptability, sharing practice, and transformation, were aspirations shared by fewer organisations. The desire to see these practices emerge was more unusual, however, these are more challenging to achieve in an organisation with existing practices and models, and more difficult to envisage as possibilities, without basic levels of digital development being in place.

Matrix queries enabled the exploration of patterns of themes against known socio-demographic characteristics, to show qualitative cross-tabulations of differences between scale, or type of organisation. Microenterprises expressed the need to grow in confidence, through establishing new digital business models and creating new digital products. Small enterprises (10-30 staff size) were purely interested in new digital business models, to help them achieve change and adaptation.

Visual arts, community arts, and theatre company organisation types expressed the most aspiration to develop digital capacity, in particular wanting to be able to introduce new operational systems. Achieving efficiencies through digitisation was a key aim of choirs, festivals, and orchestras. Theatres stood out as wanting to achieve increased digital capability through developing new digital skills in their staff; they also wanted to generally develop clarity on their visions and strategy, and develop communication channels for digital conversation. Community arts organisations and arts centres in particular sought access to expertise to help them achieve digital change. In terms of accessibility and legibility, visual arts, and arts centre organisations were particularly worried about digitally keeping pace, perhaps because they have to spend a lionshare of budgets on venue activities rather than digital.

In relation to the research questions of the PhD enquiry, this study presents a benchmark, a baseline describing where organisations were at, what their aspirations, hopes and preoccupations were, at the beginning of their *AmbITion Approach* change journeys. This benchmark enabled the final studies to establish comparison, and examine the extent to which:

- enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies.

The benchmarking study can not inform directly the other research questions in this PhD enquiry which seek to examine:

- is new practical and theoretical knowledge generated?

- could the concepts, methodologies and toolkits be a framework for business transformation?

The comparison studies of the next chapter analyses evidence from the data gathered the organisations at the end of their change journeys, to generate conclusions to these questions.

6. Final studies to inform the research questions

This chapter presents the final studies of a longitudinal enquiry. A comparison study against the benchmark study (see chapter 5), and an in-depth study on case study data gathered at the end of participant organisations change journeys are presented. The concepts, methodologies, and tools of *The AmbITion Approach* have been studied, in a longitudinal engagement with creative businesses. These final studies reveal the extent of change, and adaptation, and digital development achieved by organisations undertaking *The AmbITion Approach*.

Evidence was sought from data, gathered by research instruments designed to interrogate organisations' progress. Data was collected from creative businesses, participating in the second phase of a digital development programme AmbITion Scotland, which closed on 31st March 2014. The research instruments of business model canvasses or business plans, reflectionnaires, and rich media case studies (see 4.3, above) were designed to gather data that would facilitate an interrogation of organisations' progress, and change achieved, at the end of *AmbITion Approach* journeys. The codes developed through thematic analysis for benchmarking in the baseline study (see Chapter 5, above), will be applied to this second dataset, which was gathered later in the longitudinal enquiry. At the point of the project's closure, two organisations were still to complete their change journeys. These final studies review the outcomes of 19 of the 21 organisations studied for the baseline.

Through studying the concepts, methodologies, and tools of *The AmbITion Approach,* the final studies analysed data to provide evidence for the research questions in this PhD enquiry. The research questions seek to examine:

- to what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?

- is new practical and theoretical knowledge generated?

- could the concepts, methodologies and toolkits be a framework for business transformation?

Section one introduces the different data and the dataset, and the analytic methods applied to the reflectionnaire and case study data. Section two contains the results of a large comparison study, a mixed methods examination of the dataset. It also presents comparison and analysis against the benchmarks established in the baseline study (see chapter 5, above). Section three defines conclusions from the comparison study to inform the PhD enquiry's first research question. Section four presents two smaller studies, focussed on the analysis of the case study data, and defines conclusions to inform the PhD enquiry's second and third research questions.

6.1 Data collection at the end of the longitudinal study

6.1.1 Research instruments for data collection at the end of change journeys

This comparison study reveals the extent of change and adaptation achieved by participant organisations. Learnings and outcomes expressed at the end of change journeys were analysed: these were found in the responses from the organisations as gathered in the reflectionnaires, business model canvasses or business plans, and the published written and rich media case studies. Following the closure of AmbITion Scotland in March 2014, 19 out of the original 21 organisations had completed *AmbITion Approach* change journeys, and had interacted with the research instruments set up to collect data at this stage in the longitudinal study. A mixed methods (quantitative and qualitative) data analysis strategy, via grounded theory was facilitated by Computer Assisted Qualitative Data Analysis Software (CAQDAS), Snap survey software, and NVivo 10.

6.1.2 Reflectionnaires

The reflectionnaires were an online reflective survey, powered by SNAP software that collected data over time - early applicants brought their *AmbITion Approach* journeys to a close as early as March 2013. (See below Appendix 4 for the reflectionnaire research instrument in full, and above, 4.3.4 for a discussion of the tool). Eleven questions were asked in the reflectionnaire. The final question, which sought an email address, was the only optional one. Question ten dealt explicitly with sharing the data with research partners, all respondents agreed it, as the pie chart in figure 6.1.2.1 reflects:

Figure 6.1.2.1: Pie chart showing results of data sharing question
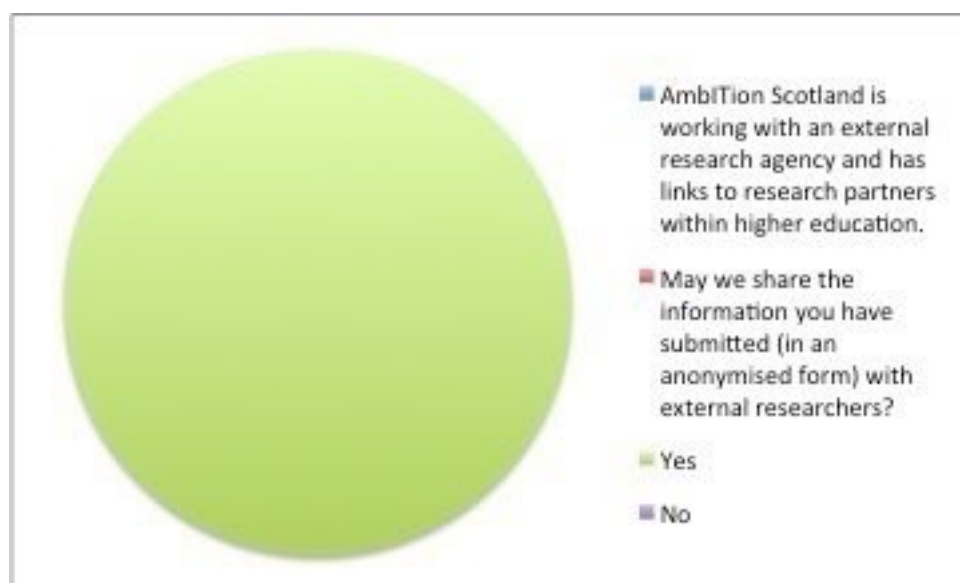
The remaining nine questions were focussed on assessing the extent to which organisations had changed or adapted digitally, and reflected the latent themes that had emerged at the benchmarking stage. For example, the reflectionnaire asked how much organisations' confidence, capacity, capability, was affected, and whether creative, collaborative, and income generating ability was increased. The questions asked for yes/no or multiple-choice responses, and then demanded further open text. This provided a mixed dataset suitable for export to Excel and NVivo 10.

All organisations completed the free text responses, as well as simply voting in the yes/no and multiple-choice responses. This shows that they wanted to reflect thoughts and feelings in long-form written feedback on their organisation's experience at the end of an *AmbITion Approach* journey. The total word count of the aggregated text in the long-form reflectionnaire responses was 3,150. (The quantitative and qualitative analysis of the reflectionnaires is below, in 6.2).

6.1.3 Business model canvasses and business plans

Organisations' business plans were originally envisaged as a dataset for analysis (see 4.3.3 for a discussion, above). Some of the business plans included business model canvasses. However, most of these documents were very large and long (Pitlochry Festival Theatre's Business Plan was thirty pages long), often with many different appendices, or other specific plans attached (marketing and communication plans, or implementation plans). The length of the documents, and their incomparable form and format, made the exercise of analysis of them too big an undertaking for this study. All business plans were very specific to each organisation, many of them shared the documents with the research project as "Commercial in Confidence". None of the documents were published publicly, nor permission granted for that. (This was the point of the documentation: to be bespoke, and useful to the organisation). The researcher therefore gathered them together, as a confidential document store for reference, on basecamphq.com, a cloud-based project management software. Sixteen organisations shared documentation with the research project. Figure 6.1.3.1, below, shows the documentation collected from participant organisations. Here, the documentation of participant organisations Vanishing Point, Stills, and Creative Stirling are shown for example. Each organisation produced an average of c. 2mb of files.

Figure 6.1.3.1: Screenshot of cloud-based confidential document store
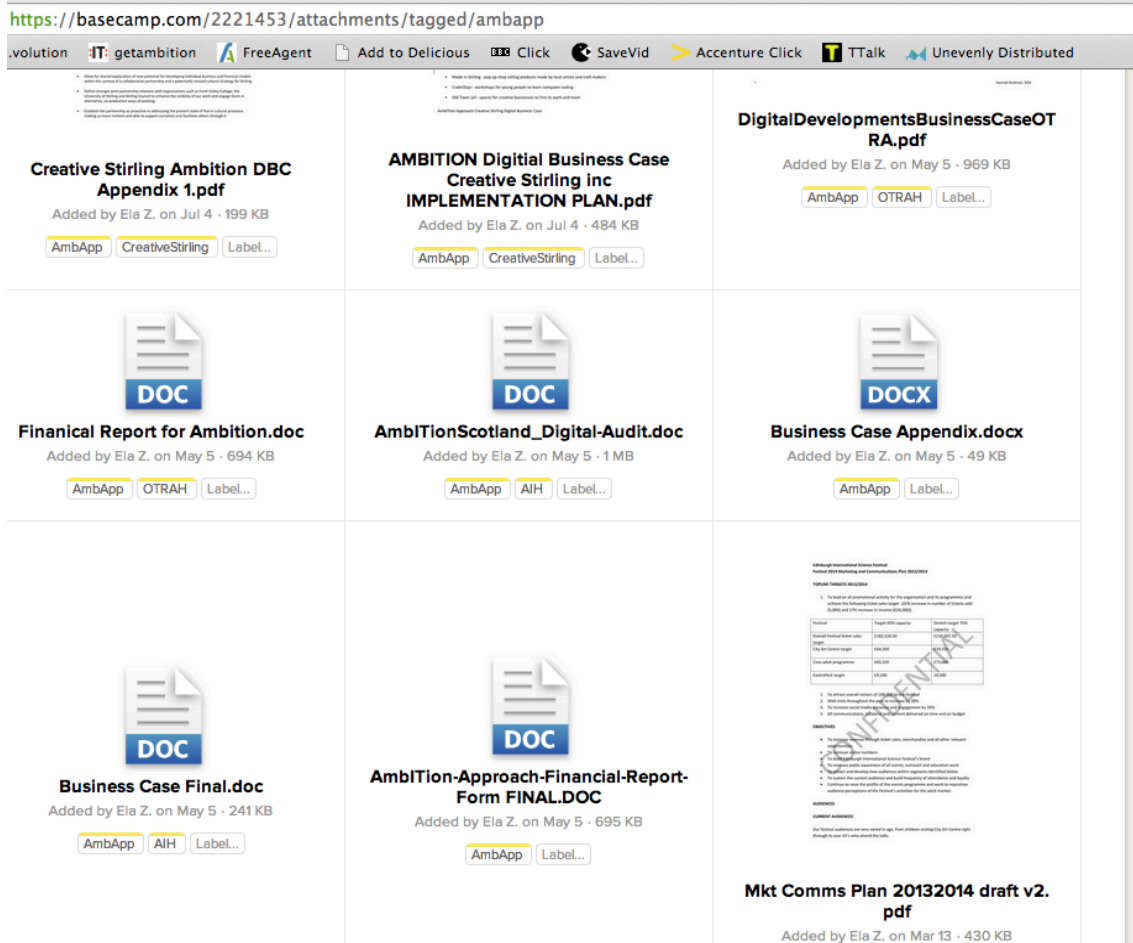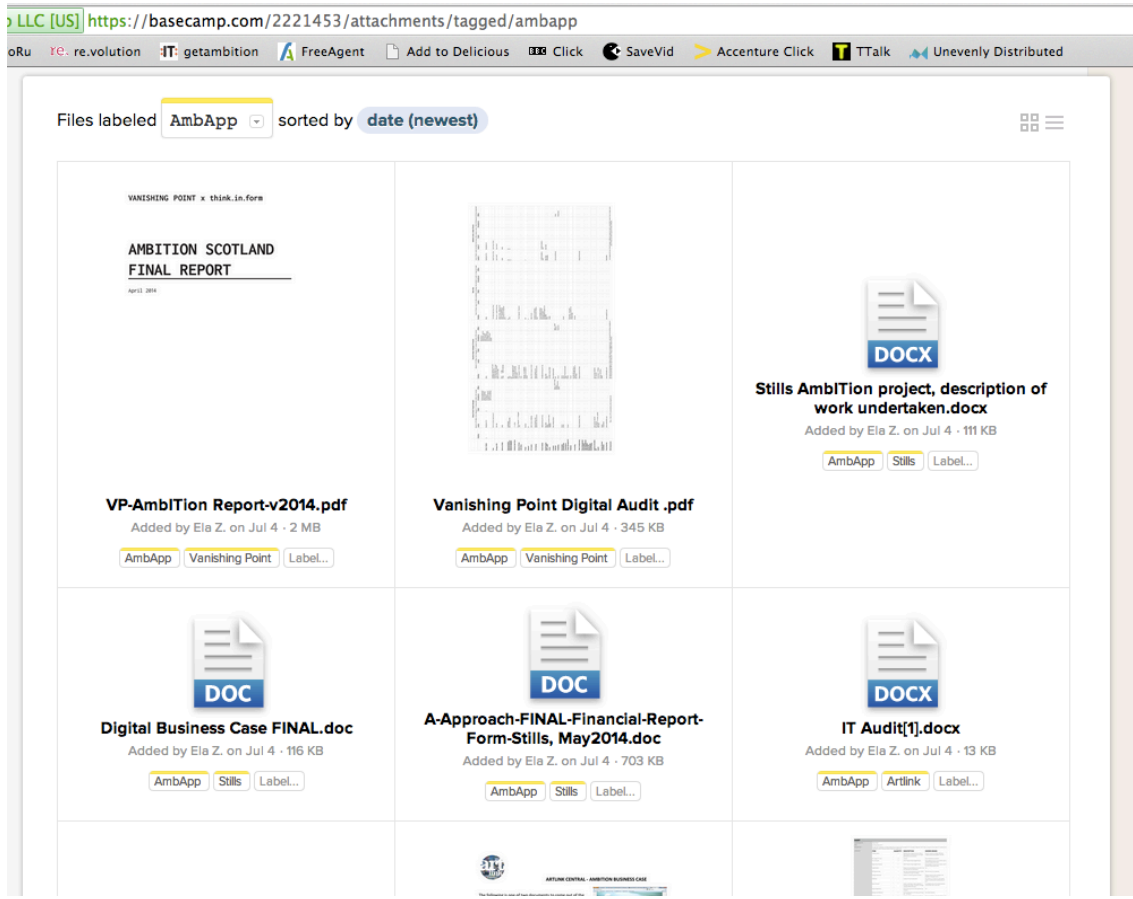
This documentation was reviewed for evidence of how many design and creative practices, and modern management consultancy tools, had been utilised by the end of change journeys (showing the depth to which the organisation had engaged with *The AmbITion Approach*. The documentation was also reviewed for how many actions were undertaken (digital developments), and how many theoretical learnings (or research outcomes) were achieved. An Excel spreadsheet was compiled to tally the results, an example of which, figure 6.1.3.2 (and repeated in larger scale for readability in Appendix 18, below), can be seen below:

Figure 6.1.3.2: Example of spreadsheet tallying results of documentation review

Organisation	Actions (new digital practices) evident in case study	# number of actions	Research/theoretical learnings evident in case study	# number of theoretical learnings	# total actions and theoretical learning (research)/outputs	# number of design tools utilised (e.g. engagement blueprint; stakeholder map)	# number of modern management consultancy tools used(e.g. Business Model Canvas - BMC, case study visit)	# number of creative practices used (e.g. customer journey stories, brainstorming, rich media case study production)	# total design tools, modern management consultancy and creative practice methods used	# total action, research outputs, design tools, modern management consultancy and creative practices achieved
Off the Rails Arthouse	CRM, CMS, website, hosting, cloud services, online payments, digital archiving, social media, broadband, staff digital skills training, online book keeping, e-newsletter, SEO & analytics	13	Audited activities. Digital strategy developed with brainstorm and BMC, analysed market and customers with engagement blueprint, identified our resources and capacity, evaluated operating practices. Revisited vision and mission. We learned quite a lot about each other's strengths, weaknesses, hopes and fears - this has pulled us together more strongly as a group.	7	20	1	1	2	4	24
Art in Healthcare	Admired problems and concerns in our digital platform through a new website(Comms), CRM, and database management system	3	Searched out inspiration and opportunities from other AmbITion case studies. Audited our activities. Defined stakeholders and customers via engagement blueprint. Digital mapping exercise and digital strategy developed using BMC and brainstorm.	4	7	1	2	2	5	12

6.1.4 Rich media case studies

Sixteen organisations completed rich media case studies, which were published online, and all can be viewed online[70] (Appendix 14, below, contains example screenshots of rich media case studies, published online). The format of these varied, as can be seen in figure 6.1.4.1, below, an overview:

Figure 6.1.4.1: Case study format overview

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[70] See http://www.getambition.com/category/content/mith-fund-case-studies/

	Case study format
1 : Art in Healthcare	Prezi
2 : Artlink Central Limited	Own video
3 : Birds of Paradise Theatre	Not completed
4 : Comar	Not completed
5 : Creative Stirling CIC	Prezi
6 : Cupar Arts	Text and pictures webpage
7 : Edinburgh International Science Festival	Slideshare
8 : Glasgow East Arts Company	Documentary film
9 : Lung Ha's Theatre Company	Prezi
10 : macrobert Arts Centre Ltd	Own video
11 : National Youth Choir of Scotland (NYCoS)	Own video
12 : National Youth Orchestras of Scotland	Text and pictures webpage
13 : Off the Rails Arthouse	Slideshare
14 : Pitlochry Festival Theatre	Own video
15 : Promote YT	Not completed
16 : Scottish National Jazz Orchestra	Text and pictures webpage
17 : Scottish Sculpture Workshop	Not completed
18 : Stills Ltd	Prezi
19 : Street Level Photoworks	Not completed
20 : Uist Wool	Podcast
21 : Wee Stories	Text and pictures webpage

(A discussion of the development of the research tool of rich media case studies is above, in 4.3.5. The guidance notes and screenshots of the online research tool that guided the publication of participants' rich media case studies, is displayed in Appendix 5, below).

Due to their differing formats, and their focus on describing the 'what and how' of digital developments, the rich media case studies were reviewed manually, twice. The first time, the content was reviewed to cross-reference the number of actions and research outcomes achieved, with the business case material. The creative and design practices, and modern management consultancy tools that were used were also tallied in the first review, and cross-referenced with the business plans. During a second review, verbatim quotes were transcribed or copied from the rich media files into an Excel spreadsheet collecting the data. The verbatim data collected related to organisations describing change, adaptation, or transformation in their own words. An example of data transcribed from viewing organisations' rich media case studies is shown in figure 6.1.4.2, below:

Figure 6.1.4.2: Example of verbatim data collected from the review of organisations' rich media case studies

Organisation	Verbatim evidence relating to transformation	Verbatim evidence relating to adaptability (data analysis, learning quickly, agility)
Off the Rails Arthouse	We could articulate our future ambitions and ended up with a clear sense of direction, a clear business case. We could see clearly how to move our organisation forward. In the long-term, we recognised certain things - that organisational development might result in a change of focus within our customer base and a 'letting go' of some parts of our market. Having discussions about digital development was a real catalyst for wider creative thinking about our future	We recognised the need to become digitally 'fitter' so that the organisation could build sustainable and resilient business practices as it evolved from start-up into established social enterprise. Programme development is underway - we are currently planning workshops in digital photography and in the future hope to develop workshops in interactive media. We recognise that growth will take time, this is only one step in the process.
Art in Healthcare	We delved deep down into the heart of the organisation and very quickly we discovered that our mission and aims no longer accurately described who we were and what we were trying to do. Our future holds a brand new vision! As we addressed this identity crisis we explored a digital strategy that would support our real needs as individuals, the organisation. Leading to a blueprint for transformation.	We began realigning our vision and mission with our work. Clarifying what AiH does that makes us different from everybody else. Articulating our three year plan and twelve month objectives and quantifying what success would look like. With a comprehensive digital audit, technical spec and business case in hand we are preparing to embark on the next stage of our adventure. Most importantly, we're feeling confident and excited because we know how to get there.
Skills Ltd	A new artistic strategy and business plan were developed for implementation July 2014, including a new vision and mission for Skills.	The implementation of everything will improve efficiency and productivity of staff, improve customer service, reduce communications costs and increase revenue from sales. AmbiTion Approach has enabled us to develop a digital business case for Skills.
Glasgow East Arts Company (Platform)		The digital world's a bit of a minefield, so it was great to work through and get to where we want to be. We've got confidence in the implementation plan and a digital strategy that fits with our business strategy to take us forward. The implications are exciting for us.
Artlink Central Limited		The development of a comprehensive and joined up digital media and IT strategy and systems, with both short and long term plans for embedding the use of digital technologies within our organisation will help us free up staff time to identify new opportunities to sustain the organisation. We discovered we're not defensive about the changes we need to make. It taught us to listen to our gut reaction to new opportunities that were offered to us. We're not technology experts, but we are experts in our own business. We'll persevere in making sure we have digital capability even though funds are hard to find.
Pitlochry Festival Theatre	If the roll out of the digital strategy, and indeed the wider development plan, is successful, we would hope that within five years, possibly ten years, we would be looking at different ways of the organisation engaging with audiences not just within the UK but across the globe as well. I would hope that audiences are able to engage with us in a whole variety of new ways, access what we have to offer, and for us to be able to provide and promote our message, our values, our mission to them. Through a whole number of different platforms. Although one of the great joys of PFT is where it is - the beautiful countryside, the particular experience you get here by the river, we want to ensure you get all parts of that experience. Making use of new tools will be a part of that - in five years time, who knows how you'll be engaging with PFT?	There were important things we got out of this: not only for now but going forward. We're collaborating with other organisations digitally and most importantly building new skills and our staff so that we can take forward that strategy that we've built, into our business plan.
…		…

The 1770 words of textual data from the rich media case studies was uploaded to NVivo 10 for coding.

6.2 Examining the final datasets gathered for comparison

The quantitative analysis of the reflectionnaire dataset was facilitated by SNAP survey software easily exporting data to Excel. Results below are provided by numbers of respondents, rather than percentages, because of the small base size of nineteen respondents.

6.2.1 Digital capacity and capability increases

Respondents felt that both their digital capacity and capability had increased as a result of undertaking *The AmbITion Approach.* (Capacity was defined as the time and space capacity the organisation had for digital development. Capability was defined as how able, skilled or capable the organisation was digitally). 11 respondent organisations expressed that digital capacity had increased a lot, and 5 felt it had increased a little, as the bar chart, Figure 6.2.1.1 displays below.

Figure 6.2.1.1: Bar chart showing change in digital capacity
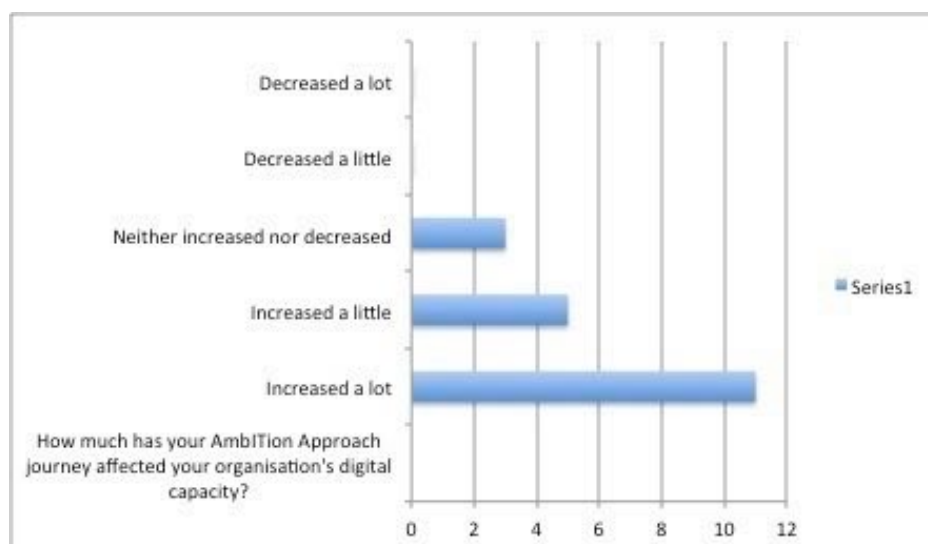
Three organisations expressed no change. When asked about their answers in more detail, different perspectives were provided, to reflect the reason for this. Some had only completed the scoping and planning of digital activity, which was yet to be actioned, but would eventually lead to improvement and digital development. They were undertaking the *AmbITion Approach* to develop a strategic plan first, so that they knew what to improve later, as anonymous responses to the reflectionnaire reveals:

> This was very much a fact finding and initial assessment exercise to discover what required to be done to increase our capacity.

> The development process which we underwent as part of Ambition Approach sharpened our focus with regards to increasing our digital capacity.

In terms of capability, the respondent group felt proportionately more capable after their undertaking of the *AmbITion Approach,* with 11 expressing a big increase, 6 a little and 2 no change, as the bar chart, Figure 6.2.2.2 displays below.

Figure 6.2.1.2: Bar chart showing change in digital capability
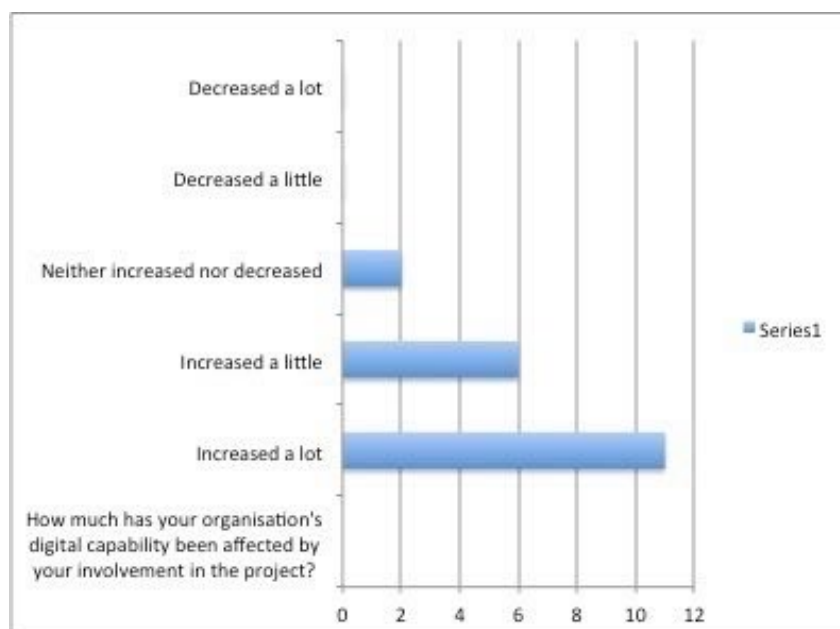
As with capacity, reflectionnaire respondents discussed less tangible outputs in terms of their increased capability, for example:

It has helped understanding of digital possibilities which can be developed.

6.2.2 Digital confidence and creativity increases

The majority of respondent organisations felt a little more confident about digital developments, with eight finding themselves significantly more confident, as the bar chart, Figure 6.2.2.1 displays below.

Figure 6.2.2.1: Bar chart showing change in confidence
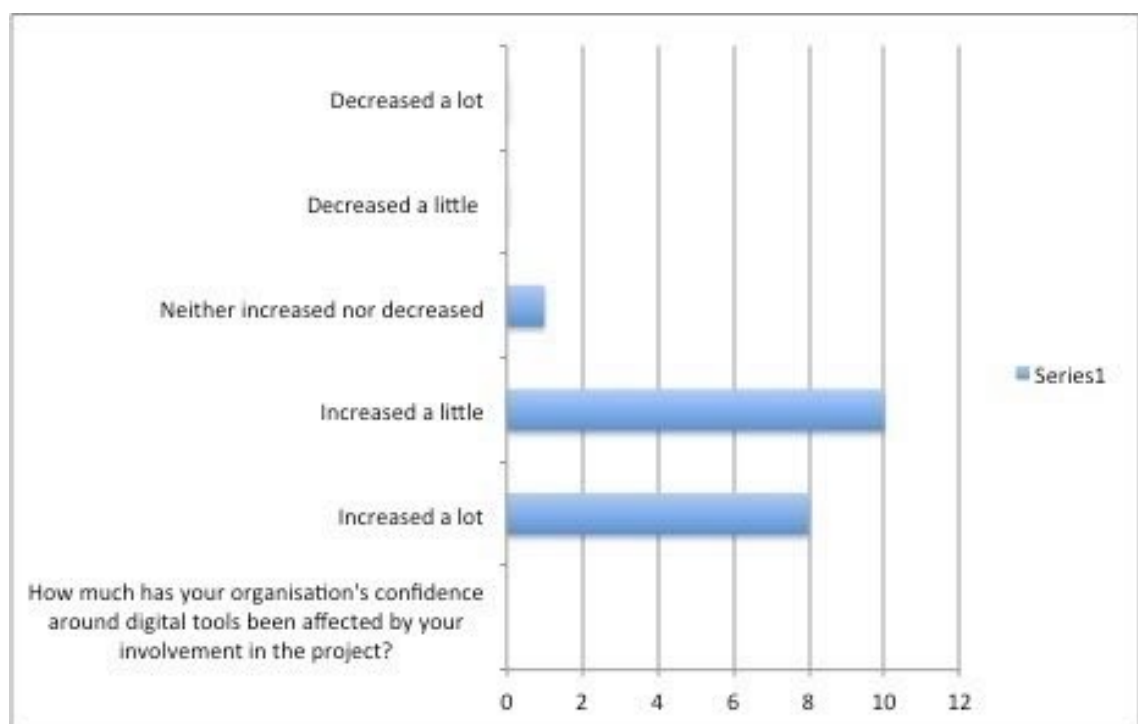
Base – 19 respondents Source – AmbITion Scotland 2014

This anonymous participant focussed on the provision of skills training as the key factor in increasing their organisation's confidence, as well as access to tools and expertise:

> We had no idea where to start – it all seemed too far removed from where we were, but we did it and we are very proud of the results so we feel more confident now to do more.

When asked about digital creativity, just over three quarters of the respondent organisations said they felt more creative, as shown in the pie chart Figure 6.2.2.2, below.

Figure 6.2.2.2: Pie chart showing increase in digital creativity
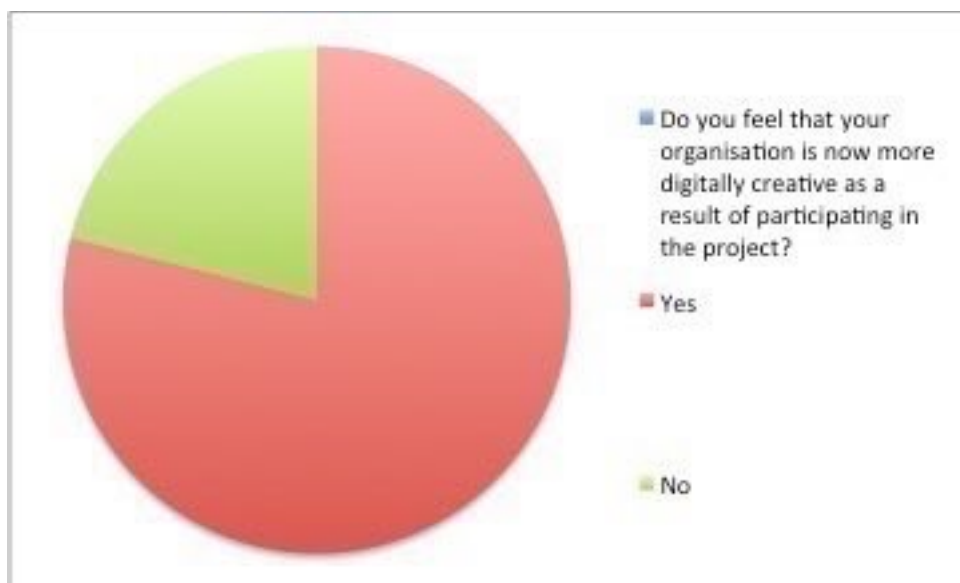
Base – 19 respondents Source – AmbITion Scotland 2014

Respondent organisations linked being more digitally creative to being more generally competent digitally, as can be seen from these verbatim quotes from the long-form anonymous answers:

> Creativity was a core part of our objectives anyway but the project has certainly added another string to our bow and provided a new outlet for our creativity.

> We are now thinking about how to give a digital face to our projects at all times and look forward to developing much richer content.

We now think first abut digital outputs before traditional media. We have a lot of upgrading to do!

Not more creative but more competent!

6.2.3 New income generation and collaboration opportunities

More than half of recipients recognised that they had identified new opportunities for income generation, as a result of undertaking *The AmbITion Approach,* as the pie chart in Figure 6.2.3.1 below shows:

Figure 6.2.3.1: Pie chart showing new income generation opportunities
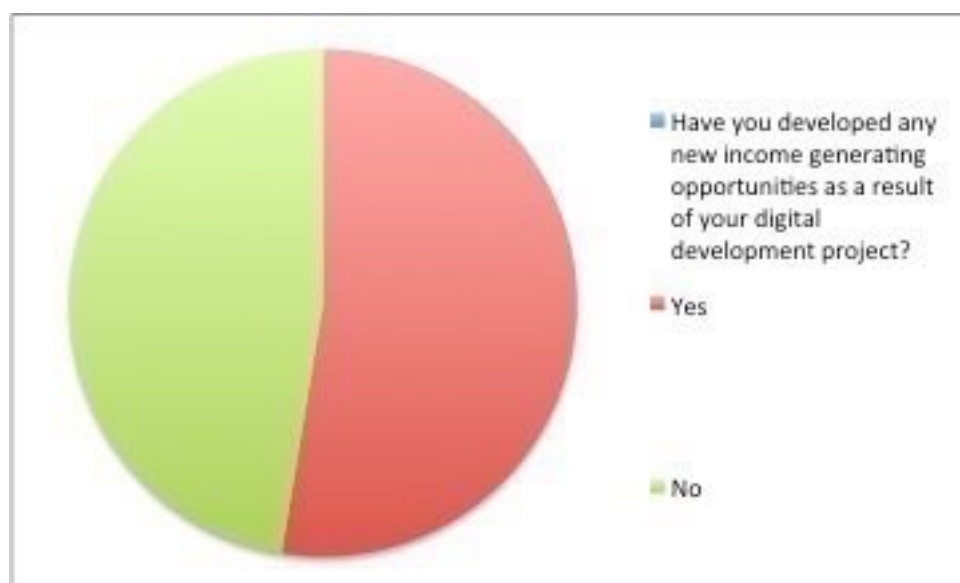
Base – 19 respondents Source – AmbITion Scotland 2014

When asked about income generation in more detail, there was a split between those organisations that had already adopted new practices, and those that were still planning:

Indirectly as it has increased audience awareness and attendance. Not directly yet as this is a pilot.

We are able to offer many more items for sale in digital rather than physical form and this is reflected in growing sales.

Although it's still in research and development stages, we hope to be able to offer our increased expertise and experience with CRM as a service for organisations with similar needs.

As a result of undertaking *The AmbITion Approach*, just over half the respondents had forged new collaborations with arts organisations, technology developers, or digital media companies, as the pie chart Figure 6.2.3.2 below reflects.

Figure 6.2.3.2: Pie chart showing increases in collaboration
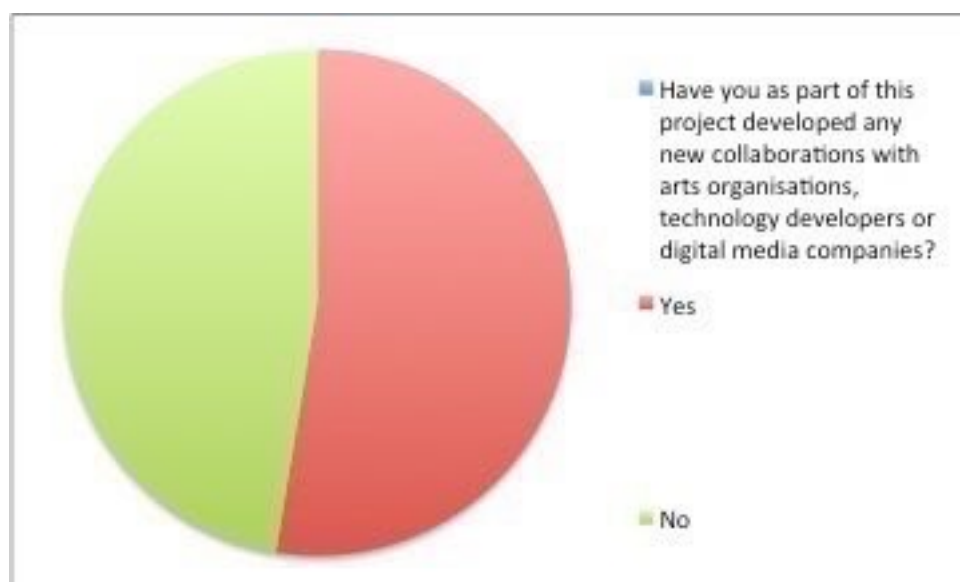
Base – 19 respondents Source – AmbITion Scotland 2014

The respondent organisations were questioned about their experience of creating a rich media case study to evaluate their own learning. Pie chart Figure 6.2.3.3 below reflects that at the point of closing the reflectionnaire (April 2014), more than half the respondents were still to complete the creation of their rich media case study. (By September 2014, 16 out of 19 organisations had completed a rich media case study).

Figure 6.2.3.3: Pie chart showing completed rich media case studies
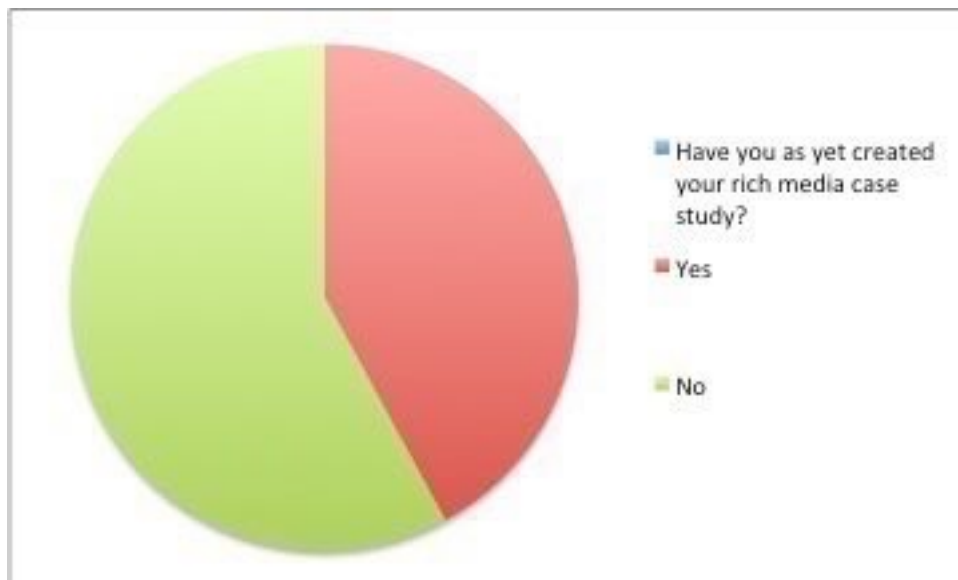
Base – 19 respondents Source – AmbITion Scotland 2014

The majority of respondent organisations that had completed the creation of a rich media case study however, felt it was a worthwhile and enjoyable experience:

> It was a very interesting way to reflect on the processes we had been through and the freedom to deliver those reflections in a medium that we were fluent in was very important and liberating.

> At first I felt forced into doing something that I had limited time for. There was a bit of debate as to whether I could afford the time as the retention amount was fairly small. But once I got over myself I enjoyed learning about a new way of presenting information.

The quantitative analysis of the reflectionnaires revealed the main gains for the respondent organisations as being: increases in capacity and capability in relation to digital development, as well as an increased feeling of confidence, and creativity, by participant organisations. This confidence, in turn, led to over half of the respondent organisations becoming more adaptable, through sourcing new ways of generating income, and forging new partnerships and collaborations with other organisations.

6.2.4 Quantitative analysis of the full dataset of reflectionnaires and rich media case studies

The reflectionnaires did provide descriptive copy from the organisations that could be analysed quantitatively. Although a much smaller textual dataset of c. 3150 words (the initial business case applications dataset was more than seven times that size), patterns of often-used words were identified and interpreted visually into a word frequency chart. 'Digital' and 'developments' were excluded, due to the frequency of the words skewing the baseline result (see 5.2.2, for a discussion on this, above). This generated figure 6.2.4.1, below, the word cloud and word frequency table:

Figure 6.2.4.1: Word cloud and word frequency table

Word	Length	Count ▽	Weighted Percentage (%)
new	3	21	1.73
now	3	21	1.73
project	7	17	1.40
website	7	15	1.23
content	7	14	1.15
increased	9	13	1.07
capacity	8	12	0.99
able	4	10	0.82
also	4	10	0.82
work	4	10	0.82
helped	6	9	0.74
lot	3	9	0.74
media	5	9	0.74
much	4	9	0.74
working	7	9	0.74
future	6	8	0.66
online	6	8	0.66
process	7	8	0.66
tools	5	8	0.66
use	3	8	0.66
yet	3	8	0.66
confidence	10	7	0.58

The words most frequently appearing were new, now, project, website, and content. As with the benchmarking study (chapter 5), it is recognised that this form of analysis is not nuanced. It tells us more about what the organisations did, rather than whether they changed or adapted. Capacity and Confidence appeared as words frequently used in organisations' responses, but it is unclear whether these are statements of achievement, or of need. The frequency of the word 'increased' suggests that organisations might have been talking about capacity and confidence growing, but this is speculative, as words are considered out of context by the software.

6.2.5 Simple coding queries

Simple coding queries revealed the themes and topics on which participant organisations were focussed, at the end of change journeys. Qualitative analysis was undertaken on the combined dataset of texts from the reflectionnaires and rich media case studies, which totalled 4920 words (4.6 times smaller than the dataset of the benchmarking study). The coding scheme, which was achieved by thematic analysis on the baseline study, was applied to the dataset. 165 references were coded across the dataset, distributed as summarised the chart shown as

figure 6.2.5.1, below (and repeated in larger scale for readability in Appendix 18, below):

Figure 6.5.2.1: Chart showing number of references coded in the reflectionnaires and case studies
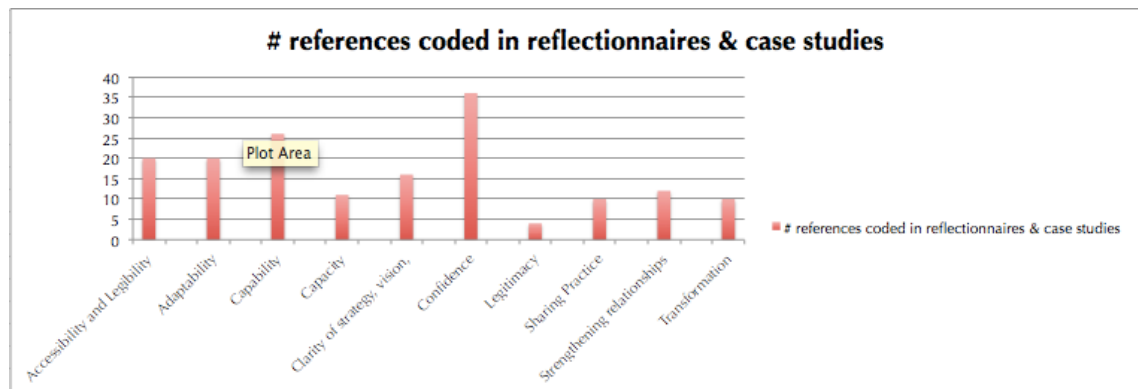
These results can be analysed, and compared to the results of the benchmark study.

The most coded reference was Confidence, the organisation's ability, preparedness, and openness to risk, with 36 instances in the reflectionnaires and case studies dataset. Organisations expressed that their confidence had grown, for example: quote shows:

> We've got confidence in the implementation plan and digital strategy that fits with our business strategy to take us forward. The implications are exciting for us.

The least coded reference (again, as in the benchmarking study) was Legitimacy, the organisation's gravitas, influence or power, and integrity online. There were four instances of organisations' making mention of subjects and topics relating to their increased power, gravitas, and influence because of their digital developments. This positive comment shows an organisation's increased sense of legitimacy:

> If the roll out of the digital strategy is successful, we would hope that within five years, possibly ten years, we would be looking at different ways of the organisation engaging with audiences not just within the UK but across the globe as well.

The second highest coded reference was Capability, how able and skilled or capable is the organisation digitally. 15.76% of all references were coded Capability, over 26 instances. Capability as a topic increased from the benchmark, where it was amongst the median codes. Most organisations experienced becoming more able, and digitally capable, after having undertaken *The AmbITion Approach*, as this reference confirms:

> the project has certainly added another string to our bow and provided a new outlet for our creativity. The organisation definitely feels capable of more things than prior to this project.

Becoming more skilled was mentioned in over half of the references coded at Capability, as this quote from a participant organisation's reflectionnaire considers:

> It has allowed fuller explanation of certain areas and demonstrated weaknesses in knowledge which have been addressed either by one to one tutorials, practical examples or by plans for future training and development. It also has highlighted the tremendous resources available for e-learning on the web including the AmbITion website.

Accessibility, and Legibility and Adaptability, were coded well above the average, at the end of the change journeys, with 20 references at each code. Many organisations reflected on the realisations and plans they were making or had made, around enhancing their Accessibility and Legibility, having undertaken *The AmbITion Approach*. Engaging accessibly with customers, and being understood by them online through digital communications and networks was what organisations described. For example, the National Youth Orchestra of Scotland, in their reflectionnaire, explained how they planned to improve Accessibility and Legibility by considering the user experience:

We began to realise that the future development of NYOS wasn't simply about better management of key stakeholder information. It was about understanding the journey through NYOS from a service users point of view. If we fully understood this and what information was required at key junctures, we could then design, develop and choose software/hardware compatible to the needs of NYOS and begin to develop the organisation further and with confidence from there.

National Youth Choirs of Scotland expressed that they had experienced a similar revelation about putting users at the centre, to increase Accessibility and Legibility, and that this had clarified their direction:

The crux of it is we've come out it realising that we want to transform the way that NYCoS communicates - as a much more customer-led organisation, and that will be digital by default.

Adaptability (defined as the responsiveness of the organisation to new digital opportunities and threats), will be discussed in more detail later in this chapter. It was coded well over one hundred percent more in this dataset, collected at the end of change journeys, than it was in the benchmark dataset. Examples of the coded references show the type of statements participant organisations were making at the end of change journeys relating to the notion of Adaptability. Organisations realised that they needed to put emphasis on continuing to develop digitally, for example:

it made us realise that the whole project it is an ongoing process for the company and identify [sic] the areas needing additional support and further development.

Another organisation reflected specifically about how they had adapted. A focus on digital developments had now become integral, to the extent that they were incorporating digital in their core work, and had more open mindsets to digital opportunities:

We learnt about how digital developments can support the company, and become integral to our work rather than being a distraction or add-on. Through this process we have become more open to the opportunities that digital tools can provide, our awareness of digital developments is increased and we feel more able to incorporate these into our work.

At the median point, Clarity of strategy, vision, mission and purpose, the organisation's understanding of its own unique qualities and what it is for and whether that is communicated with integrity online, was referenced 16 times. Comparatively, in the benchmark study of the dataset collected at the beginning of change journeys, this code was the third highest, with many organisations feeling the need to consider this. Following the completion of change journeys, there was a significant decrease in organisations wanting to reflect about this notion, as the journey itself had supported the clarification of strategy, vision, mission and purpose. This organisation explains:

> We began realigning our vision and mission with our work. Clarifying what AiH does that makes us different from everybody else. Articulating our three year plan and twelve month objectives and quantifying what success would look like.

And another notes:

> We've had a big outcome - its really made us rethink strategically beyond "just digital". We reworked our vision and mission to produce shared statements that reflected our philosophy and future aspirations.

Capacity (the time, capacity, space the organisation has for digital development) and Strengthening Relationships (organisations using digital channels to strengthen important relationships) were coded less frequently. There were few mentions of these issues in the reflectionnaires and case studies dataset from the end of change journeys, compared to at the beginning, when they were concerns and therefore high priorities. Building Capacity and Strengthening Relationships were lesser issues once organisations had undertaken *The AmbITion Approach*. As could be expected, planning and implementing digital developments increased capacity, making it less of a worry. This organisation notes the impact on Capacity that implementing digital developments across many areas of the business will achieve for them:

The implementation of everything will improve efficiency and productivity of staff, improve customer service, reduce communications costs and increase revenue from sales.

One participant mentions the building of capacity potentially having a direct impact on the organisation's ability create financial resilience:

The development of a comprehensive and joined up digital media and IT strategy and systems, with both short and long term plans for embedding the use of digital technologies within our organisation will help us free up staff time to identify new opportunities to sustain the organisation.

Another recognises the direct positive relationship between building capacity, and securing funds for other developments and ideas:

We have been successful in our applications to several funders recently to support running costs and production costs for our event and we believe this to be directly related to our increased digital capacity including accessible and comprehensive website and competent use of social media.

Organisations considered whether undertaking a digital development journey had helped them strengthen relationships. Most talked about Strengthening Relationships with their audiences -

We now have a new digital platform on line which is reach [sic] a wider audience

- but some mentioned the specific relationships they had built up with digital developers, and technologists. This quote reflects that the relationship this organisation built with a developer, means more to them all than just a financial contract for work, suggesting mutual benefit:

We have been successful in our applications to several funders recently to support running costs and production costs for our event and we believe this to be directly related to our increased digital capacity including accessible and comprehensive website and competent use of social media.

Transformation (organisations being prepared to completely change and transform what/how they do things to be a digitally enabled business) and Sharing Practice (organisations being open enough online, to be sharing practice, learning, advice, contacts, methods - with some or all stakeholders) were coded at lower levels in comparison to other issues. However, compared to the benchmark established at the beginning, Sharing Practice was coded at similar levels. Organisations reported the benefits that sharing practice around digital developments achieved, For example, the National Youth Orchestra of Scotland reflected positively on having practice shared with them from other organisations:

> Events allowed members of the NYOS team to meet people from other arts organisations with similar goals and aspirations. These organisations had been through very similar situations, encountered the same difficulties and more importantly, had discovered how to overcome them. By sharing information in this way we were able to identify previous projects and case studies.

Another organisation reflected that it looking forward to sharing the practices and learnings that they had achieved, with others:

> We feel really clear about the way forward, with a focus on becoming a digitally optimised organisation that can share the learning and opportunities that come out of that with our community.

Compared to the benchmark at the beginning of change journeys, references mentioning the notion of Transformation were coded significantly more, at well over one hundred and sixty percent more at the end of change journeys, compared to the beginning of them. The codes Confidence and Adaptation were also coded at well over one hundred and forty per cent more. The significant increases and decreases in the frequency of codes in the datasets suggests a difference in attitudes and concerns, and could show possible change achieved - this is discussed below, in 6.2.6.

The simple coding queries applied to this dataset proved the relevance of the codes as themes to be applied to digital development change journeys. Whereas at the beginning of change journeys, the themes emerged as aspirations and

issues: at the end of change journeys, the similarly coded references reflected achievements. Gaining an increase in digital confidence and capability were the achievements most mentioned in reflectionnaires and case studies. Increases in Accessibility and Legibility and Adaptability were also achieved, as proved by high levels of coded references. Developing Capacity was mentioned less, but this can be explained by the very undertaking of a change journey, which develops organisational capacity explicitly. Strengthening Relationships and Sharing Practice remained a focus for fewer of the organisations, and establishing Legitimacy was the concern and achievement of the few. The reflectionnaires and rich media case studies dataset showed far higher levels of reflection on the topics of Transformation, Confidence and Adaptation, this will be later.

6.2.6 Levels of coding across datasets

A comparison was constructed from the simple coding queries, across both the benchmark and final datasets. Levels of coding in the applications at the beginning of the change journey, and at the journey's completion in the reflectionnaires and case study dataset, were compared. Percentages of the total number of codes in each dataset were calculated, to highlight the differences. Figure 6.2.6.1 below shows the reflectionnaires and case studies dataset as numbers of references then as percentages, and then the applications dataset as numbers of references then as percentages. A final column shows the positive or negative difference between the percentages of references coded in the applications dataset from the beginning of change journeys, versus the reflectionnaire and case studies dataset from the end.

Figure 6.2.6.1: Comparison of references coded in both datasets

Codes	# references coded in reflectionnaires & case studies	% of total references coded in relectionnaires & case studies	# references coded in applications	% total references coded in applications	%difference in references coded from applications to reflectionnaires & case studies
Accessibility and Legibility	20	12.12	65	25.09	-51.69
Adaptability	20	12.12	13	5.03	140.95
Capability	26	15.76	31	11.96	31.77
Capacity	11	6.67	47	18.15	-63.25
Clarity of strategy, vision, mission, purpose	16	9.69	44	16.99	-42.96
Confidence	36	21.82	22	8.49	157
Legitimacy	4	2.43	4	1.55	58.06
Sharing Practice	10	6.06	8	3.09	96.11
Strengthening relationships	12	7.27	19	7.33	-0.81
Transformation	10	6.06	6	2.32	161.2
Totals	165	100	259	100	

The percentage difference results show the increase and decrease of the amount of coding of a certain reference. Coded at around fifty percent less at the end of change journeys were the topics of Accessibility and Legibility (-51.69% less coded than at applications stage), Capacity (coded -63.25 less), and Clarity of strategy, vision, mission and purpose. It is likely that these topics were mentioned less at the end of change journeys, as they had been improved, or achieved, during the process. Strengthening Relationships was mentioned at similar levels in both datasets, suggesting that those interested in this topic at the beginning achieved their goals. Legitimacy was coded 58.06% more in the reflectionnaires and case studies dataset, but this was overall the lowest coded topic, with low levels of instances (only 4 times) in both datasets, so no clear conclusions can be offered.

Capability was coded 31.77% more at the end of change journeys, with organisations discussing how they already had achieved it through the process, for example, this organisation describes a very specific capability outcome:

> Our new media marketing officer has been able to develop his skills and role in the company as a result of the project

Other organisations described the plans they had to build capability over time, for example:

Increasing individual staff members' confidence/digital literacy is an ongoing process, as not everyone adapts to new tech/methods at the same rate.

One participant described the digital development project's intervention causing the improvement in capability:

Our organisation's digital capabilities have been transformed by the project. The project shows every sign of being sustainable in the long term.

Sharing Practice was mentioned almost one hundred percent more at the end of change journeys, with organisations not just interested in the idea of it (as they were at the beginning), but explicitly practising it. The end of *The AmbITion Approach* explicitly requires organisations to evaluate their outcomes and learnings, and organisations reflected on this stage in reflectionnaires and case studies. Typical comments from organisations on this topic include positive reflections on this step, and the notion in general. For example:

It really helped put the projects in context and focus us on the real benefits.
At first I felt 'forced' into doing something that I had limited time for... BUT, once I got over myself I enjoyed learning about a new way of presenting information:)

This organisation explicitly reflects on the cyclical nature of *The AmbITion Approach* - considering how an evaluation phase encourages looking forward as well as back:

It was a very interesting experience, having to put together all the information and reflect on the journey from the start. Also, it made us realise that the whole project it is an ongoing process for the company

There were three codes with dramatic increases in coverage in the reflectionnaires and case studies dataset. Adaptability (140.95% increase), Confidence (157% increase), and Transformation (161.2% increase) were the topics that were mentioned much more at the end of change journeys. Whereas confidence was needed around digital developments at the beginning of change journeys, the references coded at Confidence at the end of change journeys show it as having

developed and been achieved. For example, one organisation mentions the confidence gained through the development of new skills:

> We now think first about digital outputs before traditional media. We're more confident using tools we weren't sure how to use before!

- whilst another participant thinks that the digital developments have been achieved because of the confidence staff gained in themselves through undertaking *The AmbITion Approach*:

> A lot of it is down to having more confidence thanks to the AmbITion process and integrating a digital approach into planning. Mostly, it has increased our confidence, allowing us to really dive in!

The notion of building skills to allow the organisation to continually adapt, coded Adaptation, was a vague concern for some organisations at the beginning of their digital development change journeys. However, at the end, there was a 140.95% increase in references coded at Adaptation. One organisation explains that they now proactively consider the future, rather than react to the past:

> The process helped the company to move away from fire-fighting to look at potential future developments.

Another participant discusses the change in mindset of the organisation, which allowed (and would continue to allow) them to adapt:

> We discovered we're not defensive about the changes we need to make. It taught us to listen to our gut reaction.

Transformation as a notion saw the highest increase, of 161.2%, in the reflectionnaires and case studies dataset from the applications dataset, before change journeys had been undertaken. The significant increase in the frequency of codes in the dataset suggests a difference in attitudes and concerns around Transformation at the end of change journeys. At the beginning, organisations were not sure what to expect, with only a few thinking it might lead to transformation (see 5.4, above). When reflecting on what had changed at the end

of *AmbITion Approach* change journeys, a number of participants found that there had been, or was going to be, organisation-wide impact:

> We explored digital development in the sense of how it affects the whole organisation not just a department or a function. This for us was very interesting and we recognised that the digital development journey was going to have an impact on everybody in the organisation.

and,

> we explored a digital strategy that would support our real needs as individuals, the organisation. Leading to a blueprint for transformation.

There is further evidence of organisation-wide impact and transformation in this organisation's reflections:

> Taking the *AmbITion Approach* for NYCoS has been pretty transformational. Its had a much wider result than we probably anticipated. It really made us look at the full organisation.

Other organisations expressed the notion of transformation in terms of allowing completely new approaches and thinking in their businesses, which would eventually transform the business. For example, one states:

> In the long-term, we recognised certain things - that organisational development might result in a change of focus within our customer base and a 'letting go' of some parts of our market. Having discussions about digital development was a real catalyst for wider creative thinking about our future.

Another organisation similarly reflects on how undertaking a change journey to consider digital developments gave them ideas for new products that will transform their enterprise through the addition of a new brand for a new market:

> The review identified that the creative team's desire to create cross-generational work for children from 8 up and adults is not served well by the existing "Wee Stories" brand originally created for work for younger children. The Board therefore agreed at our mapping day that an additional brand / name should be

developed to identify and promote the scale and age suitability of work for older children, young people and adults, whilst maintaining the Wee Stories name and brand for work for children aged 8 and under. The *Ambition Approach* process enabled the company to identify how digital might support this brand and organisational development process.

Comparing the levels of coding across the baseline dataset of chapter 5 and the final dataset shows the changes in the preoccupations, themes, and topics discussed by the participant organisations as they progressed from beginning to end of a change journey.

6.3 Evidence from the comparison study to inform the first research question

6.3.1 Mapping the thematic analysis' codes to the PhD enquiry's research questions

An exercise was undertaken to show the relationship between the thematic analysis' coding structure and the PhD enquiry's research questions. Child codes were mapped to parent codes from the thematic analysis, which in turn were mapped to the PhD enquiry's research questions. See Figure 6.3.1.1, below (and repeated in larger scale for readability in Appendix 18, below):

Figure 6.3.1.1: Thematic analysis' coding structure mapped to the PhD enquiry's research questions
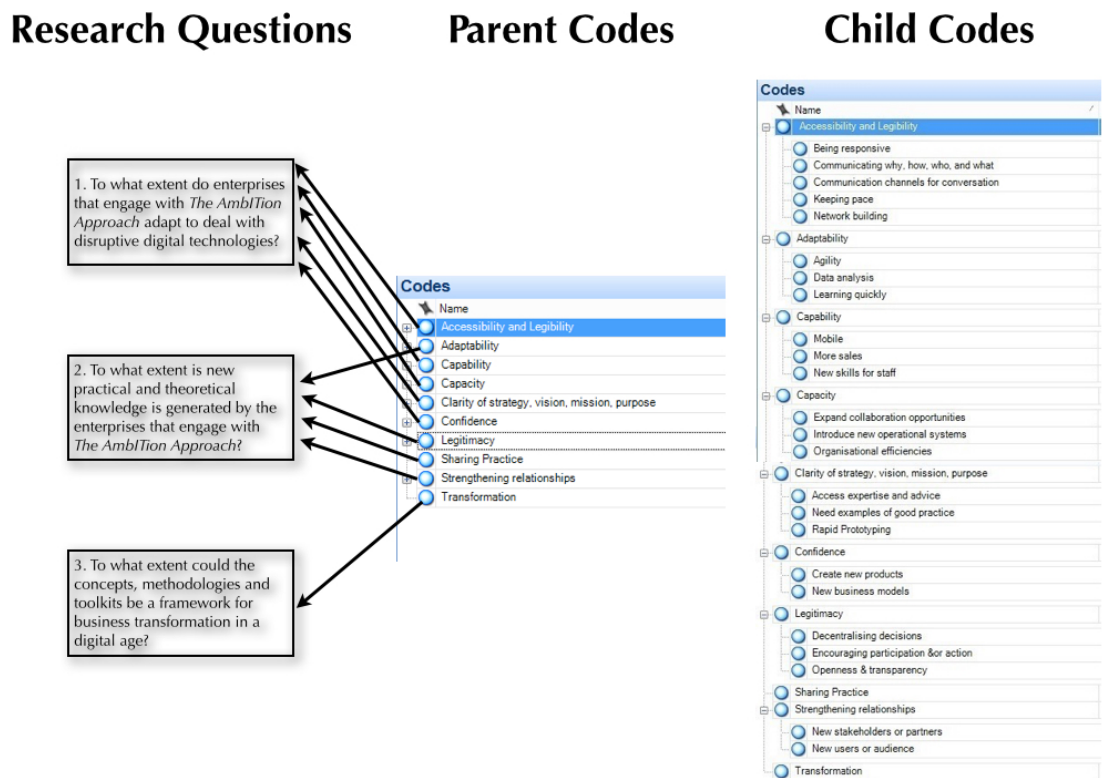
6.3.2 Conclusions from the comparison study that inform the first research question

This study compared a dataset gathered from organisations at the end of change journeys, against a benchmark describing where organisations were at, what their aspirations, hopes, and preoccupations were, at the beginning of their *AmbITion Approach* change journeys. The comparison study has provided insight into the PhD's first research question, examining the extent to which:

- enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?

There was significant evidence of confidence, capacity, capability and adaptation being mentioned more in the final dataset from reflectionnaires and case studies (as discussed above in 6.2.5).

Confidence was the most highly coded reference, with verbatim quotes from organisations' responses proving that digital confidence had grown. Organisations, in their own words, described the ability to create new digital products, business models, and opportunities. Organisations also showed that their ability, preparedness, and openness to risk had grown. In the dataset comparison between the beginning and end of change journeys, confidence was discussed 157% more by organisations at the end. The quantitative data from the reflectionnaire survey relating to increases in confidence showed eight organisations expressing that their digital confidence had "increased a lot", ten expressing it had "increased a little", and one concluding that their digital capacity had "neither increased or decreased" (see Fig 6.2.2.1, above).

Capability (how able and skilled or capable the organisation is digitally - via more digital skills, or a broadening of digital ability through channels such as mobile) was also discussed more at the end of change journeys. It was the second highest coded reference, with a 31.77% increase in references coded in the reflectionnaires and case studies dataset. From the quantitative data in the reflectionnaire survey, eleven organisations expressed that their digital capability had "increased a lot"; six that it had "increased a little" and two organisations concluded that it had "neither increased or decreased" (see Fig 6.2.1.2 above).

Capacity, the time, capacity, and space the organisation has for digital development, was coded less frequently at the end in the reflectionnaires and case studies dataset. At the beginning, digital Capacity was coded the second highest, with many organisations wanting to introduce new operational systems, increase efficiencies, and expand digital opportunities through giving them more time and space. This decrease can be explained by the organisations planning and implementing digital developments during their change journeys, therefore increasing their digital capacity throughout that stage, making it less of an issue. It

no longer needed introducing or discussing. This conclusion is supported by the quantitative data from the reflectionnaire survey relating to increases in capacity. Results decisively show eleven organisations expressing that their digital capacity had "increased a lot", five expressing it had "increased a little", and just three concluding that their digital capacity had "neither increased or decreased" (see Fig 6.2.1.1, above).

Adaptability (the responsiveness of the organisation to new digital opportunities and threats, learning quickly, becoming more agile, having the skills and ability to diversify focus) was a main gain for over half of the respondent organisations. This was revealed by the quantitative analysis of the reflectionnaires. Organisations stated that they had become more adaptable, via sourcing new ways of generating income, and forging new partnerships and collaborations with other enterprises. Adaptability only received 1.39% coverage in the applications dataset, but this increased in the final dataset where it was coded well above average. There was a 140.95% increase in levels of references coded Adaptability in the reflectionnaires and case studies dataset.

The mixed methods analysis of the datasets via grounded theory, and the comparison between them, prove that confidence, capacity, and capability increased to a significant extent in participant organisations, and that through undertaking *The AmbITion Approach*, they built skills in adaptation to deal with disruptive digital technologies.

6.3.3 Qualifying the extent to which organisations experienced change

Coghlan and Rashford built on Lewin's change theory, as discussed in chapter 4 (see 4.1.9, above). They identified first, second, and third order change categories and definitions (Coghlan and Rashford, 2006), as figure 6.3.3.1 below shows:

Figure 6.3.3.1 - Coghlan & Rashford's change categories

Type of change	Definition	Example evidence of change and learning (themes)
First order	Specific change occurs within existing ways of thinking.	Improvements in products or services.
Second order	Change requires lateral thinking and questioning of core assumptions.	System-wide change in ways of thinking and acting - can lead to new business, operational models
Third order	Organisation learns how to question own assumptions and points of view, and develop and implement new ones	Organisational transformation

This study applied these definitions of types of change to qualify the extent to which organisations experienced change.

Of all nineteen organisations that completed reflectionnaires, most experienced increases in relation to their confidence, capacity, and capability, and adaptation ability. This is a significant result, and is the type of example evidence that Coghlan and Rashford's categories of change demand. Increases in an organisation's confidence, capacity, and capability, and adaptation ability are system-wide changes in thinking and acting, and could lead to new business models. Core assumptions have been challenged in an organisation if adaptation ability is increased: it would not be possible within the status quo. Adaptation ability demands lateral thinking, and so organisations that adapted can also have the definition of second order change applied.

Another exercise was undertaken, looking specifically at the qualitative data divulged in the sixteen rich media case studies (Appendix 15, below, presents examples of the matrix used to review the case studies). The case studies were reviewed looking for explicit evidence of Transformation and Adaptation (evidence of second order change). Verbatim quotations relating to Transformation and Adaptation were collected in the matrix. The information from the matrix was imported into NVivo.

Matrix coding queries were then undertaken on the case studies' dataset only, to create qualitative cross-tabulations to explore patterns in the coding. Matrix coding queries enabled comparison at a deeper level for a more detailed analysis of which organisations had experienced Adaptation and Transformation. Of the sixteen organisations with rich media case studies, all sixteen organisations had verbatim content in their case studies, which described Adaptation being built, and was coded at this reference.

6.3.4 Transformational, third order change

Transformation, organisations being prepared to completely change and transform what/how they do things to be a digitally enabled business, was a concern of the very few at the beginning of change journeys. Before undertaking *The AmbITion Approach*, few organisations explicitly expressed a desire to completely change and transform how or what they did to become a completely digitally enabled business. There was 0.80% coverage in the initial dataset on the topic. However, at the end of change journeys, and described in the rich media case studies, the following nine organisations made statements about both Transformation and Adaptation in figure 6.3.4.1 below:

Figure 6.3.4.1: Table of organisations evidencing Transformation (and Adaptation)

Transformation (& Adaptation) achieved	Art form type of organisation	Staff Size	Remote, rural or city location
Off the Rails Arthouse	Community arts	Under 10	Remote
Art in Healthcare	Community arts	Under 10	City
Stills Ltd	Visual arts	10-30	City
Pitlochry Festival Theatre	Theatre Company	10-30	Rural

macrobert Arts Centre Ltd	Arts Centre	10-30	City
Wee Stories	Theatre Company	Under 10	City
Uist Wool	Community arts	Under 10	Remote
National Youth Choir of Scotland (NYCoS)	Choir	Under 10	City
Creative Stirling CIC	Community arts	Under 10	City

These organisations, having experienced Transformation, can be described as having experienced third order change in Coghlan and Rashford's categorisation. Just under half of the organisations that experienced third order change were community arts organisations, two of these were located remotely. Both a large and a small theatre company experienced Transformation and third order change. Six out of nine of the organisations had a staff size of under ten. This indicatively suggests that community arts organisations are more likely to experience Transformation and third order change than other art forms; and that organisations with staff sizes under ten (micro -enterprises) are more likely to transform and experience third order change. A larger cohort of organisations would be needed to say anything conclusive about whether location, staff size and art form has any significant effect on achieving third order change.

The seven organisations shown in the table in figure 6.3.4.2, below made statements just relating to Adaptation, but made no mention of Transformation:

Figure 6.3.4.2: Table of organisations evidencing Adaptation only

Adaptation only achieved	Art form type of organisation	Staff size	Remote, rural or city location
Glasgow East Arts Company (Platform)	Arts Centre	Under 10	City

Artlink Central Limited	Community art	Under 10	City
National Youth Orchestras of Scotland	Orchestra	Under 10	City
Edinburgh International Science Festival	Festival	10-30	City
Lung Ha's Theatre Company	Theatre Company	Under 10	City
Scottish National Jazz Orchestra	Orchestra	Under 10	City
Cupar Arts	Festival	Under 10	Rural

The majority of organisations experiencing Adaptation, or second order change, were city based, and were micro-enterprises, with a staff size of under ten. It could be implied that their closeness to each other (in the central belt in Scotland), and similarity in scale encouraged a sense of "if they can do it, so can we" (imitation, rather than innovation or transformation). Two orchestras and two festivals experienced Adaptation, but again, a larger cohort of organisations would be needed to say anything conclusive about whether location, staff size, or art form had any significant effect on achieving second order change.

The few organisations that completed reflectionnaires, but not case studies, experienced first order change, as categorised and defined by Coghlan and Rashford, but it occurred at planning level, and was not actioned, hence no case study could be created. The reflectionnaire data backs that up - three separate responses from organisations state:

1. Technically nothing has changed but I think our perception of what is possible has opened up so from that point of view our capacity has increased.
2. Increased awareness again of what can and should be done that will hopefully be implemented later this year fully

3. it has helped understanding of digital possibilities which can be developed if we are successful at the next stage of Digital development.

Organisations that planned change but did not take action, experienced increases in relation to their digital confidence, capacity, and capability, and adaptation ability at a first order level of change.

Organisations (two) that did not complete change journeys (part of the initial dataset, but not the final) are not counted, as their results are still to be reported. The table in figure 6.3.4.3, below, shows the results of the type of change achieved, as discussed above, as percentages of the total base of 19 organisations:

Figure 6.3.4.3: Table of type of change achieved as numbers of organisations and percentages

Evidence of change achieved	# organisations	% organisations	Definition of type of change
Transformation & adaptation in case study	7	36.86	Third order
Adaptation only in case study	9	47.36	Second order
Reflectionnaire only showing little change	3	15.78	First order
	(Base: 19)	100	

Analysing the case studies data alone was a useful study. Organisations with case studies were prepared to say, publicly, that they had experienced increases in relation to their digital confidence, capacity, and capability, and adaptation ability. The data is particularly powerful because it is both identifiable to the organisations (not anonymous, like the reflectionnaire data), and publicly available (not only available to researchers, like the reflectionnaire data). Appendix 14, below, shows examples of rich media case studies, published online in the public domain. The evidence is public, and therefore verifiable.

There was another benefit of looking at attributable data presented in the rich media case studies. It represented self-validation - organisations presenting the extent of change on their own terms - in what ever rich media format they chose, and in their own words. This is discussed further in chapter 7, below.

Although final sample size of twenty one organisations is too small a base from which to generate robust quantitative statements, it is worth translating the results into percentages to show the change impact. 36.86% of the nineteen organisations that undertook *The AmbITion Approach* experienced third order change, seeing transformation of their enterprise into a digital business. 47.36% of organisations that undertook *The AmbITion Approach* experienced second order change, seeing their business building the criteria (in particular increasing capability, capacity, and confidence) to become adaptive to digital disruption. 15.78% of organisations experienced first order change, and were at the beginning of a journey to implement change, having spent their *AmbITion Approach* journey planning, rather than acting. Cumulatively, 84.22% of organisations experienced second or third order change.

6.4 Analysis of the rich media case studies and business plan data, and evidence for answering the second and third research questions

6.4.1 Analysing action research: action outputs and research/learning outcomes

The implication of participatory action research methods embedded in *The AmbITion Approach* is that organisations should see two types of impact: actions (outputs) and research/theoretical learning outcomes. The rich media case studies data was analysed to investigate this.

The case studies were reviewed twice each, and instances of actions and research/theoretical learnings evident were noted and tallied. (An example section of the matrix used to review the case studies for this examination is in Appendix 15, below). For example, the case study (a SlideShare of a Powerpoint presentation, see Appendix 14, below) of organisation Off The Rails Arthouse (OTRA) provided evidence of new actions - new digital practices planned or implemented. It also provided evidence of some of the research/theoretical learning outputs. This list was also cross-referenced with the confidential business plan submitted to AmbITion Scotland, to validate it. OTRA's entry in the case study review matrix, Figure 6.4.1.1, can be seen below as an example:

Figure 6.4.1.1: Off The Rails Arthouse's Actions and Research outcomes results and tally

Organisation	Actions (new digital practices) evident in case study	# number of actions	Research/theoretical learnings evident in case study	# number of theoretical learnings	# total actions and theoretical learning (research)outputs
Off the Rails Arthouse	CRM, CMS, website, hosting, cloud services, online payments, digital archiving, social media, broadband, staff digital skills training, online book keeping, e-newsletter, SEO & analytics	13	Audited activities. Digital strategy developed with brainstorm and BMC, analysed market and customers with engagement blueprint, identified our resources and capacity, evaluated operating practices. Revisited vision and mission. We learned quite a lot about each other's strengths, weaknesses, hopes and fears - this has pulled us together more strongly as a group.	7	20

OTRA's rich media case study described the new digital practices implemented or planned (see Actions column), and this totalled 13. The processes that the organisation undertook during *The AmbITion Approach,* and reported in their case study or confidential business plan (see Research/theoretical learnings column), totalled 7.

The 7 research/learnings reported included:
1.   an audit of activities,

2. an audit of skills and confidence (the value of this was summed-up in Off The Rails Arthouse's own words as "we learned quite a lot about each other's strengths, weaknesses, hopes and fears")

3. an audit of capacity and resources

4. a digital strategy created through

   - brainstorming, and

   - developing a business model canvas

5. an engagement blueprint analysing market and customers

6. a review of operating practices

7. a review of vision and mission

The exercises undertaken by OTRA in research and learning produced documentation that was submitted to the AmbITion Scotland project, in confidence, as business plans and implementation reports. These were scanned by the researcher, and used to validate the case study narratives, reporting action outputs and research outcomes. The total actions and theoretical outputs evident for OTRA was twenty. Each organisation was reviewed thus.

6.4.2 Evidence for answering the second research question: is new practical and theoretical knowledge generated?

The exercise enabled the second research question of the PhD to be answered:

- Is new practical and theoretical knowledge generated by the enterprises that engage with *The AmbITion Approach*?

Sixty six actions were achieved in total by sixteen organisations, and sixty nine research/learning outcomes were also achieved. This equates to an average figure of 4.15 actions per organisation, and an average figure of 4.31 research /learning outcomes being achieved per organisation. Over four instances of practical knowledge, and over four instances of theoretical knowledge were generated on average by organisations that had undertaken *The AmbITion Approach*. Organisations that achieved four each or more of action outputs and research

outcomes achieved adaptation, and generated new practical and theoretical knowledge.

6.4.3 Totals of action and research outcomes impact the likelihood of Transformation

The organisations were categorised according to whether they achieved Transformation and Adaptation, or Adaptation only, resulting in the following matrix, figure 6.4.3.1, below:

Figure 6.4.3.1: Matrix of action and research outcomes, averaged over Transformation achieving and Adaptation only achieving organisations

Transformation & Adaptation achieved	# total of actions & research outcomes
Off the Rails Arthouse	20
Art in Healthcare	7
Stills Ltd	11
Pitlochry Festival Theatre	7
macrobert Arts Centre Ltd	5
Wee Stories	5
Uist Wool	6
National Youth Choir of Scotland (NYCoS)	8
Creative Stirling CIC	13
Average (base of 9)	**9.11**

Adaptation only achieved	# total of actions & research outcomes
Glasgow East Arts Company (Platform)	8
Artlink Central Limited	6
National Youth Orchestras of Scotland	5
Edinburgh International Science Festival	8
Lung Ha's Theatre Company	9
Scottish National Jazz Orchestra	6
Cupar Arts	10
Average (base of 7)	**7.43**

Figure 6.4.3.1 above, shows an interesting result: that organisations achieving Transformation had a higher average total of action and research outcomes (9.11), than the organisations achieving Adaptation only (an average of 7.43 action and research outcomes were achieved by this group). Achieving over nine actions and more research and learning outcomes is more likely to result in the organisation experiencing Transformation.

6.4.4 Analysing the use of modern management consultancy tools, design practices, and creative practices

The rich media case study and business plan report dataset was also analysed to investigate whether the modern management consultancy tools, design practices, and creative practices of *The AmbITion Approach* influenced the extent of change achieved by participants. Again, the case studies were reviewed twice each, and instances of the stated use of them were noted and tallied. (An example section of the matrix used to review the case studies for this examination is in Appendix 15, below). For example, the case study of Off The Rails Arthouse provided evidence of the use of modern management consultancy tools, design practices, and creative practices. This list was also cross-referenced with the confidential business plan report submitted to AmbITion Scotland, to validate it. OTRA's entry in the case study review matrix, figure 6.4.4.1, can be seen below as an example:

Figure 6.4.4.1: Tally of Off The Rails Arthouse's use of modern management consultancy tools, design practices, and creative practices

Organisation	# number of design practices utilised (e.g. engagement blueprint, stakeholder map)	# number of modern management consultancy tools used (e.g. Business Model Canvas - BMC, case study visits)	# number of creative practices used (e.g. customer journey stories, brainstorming, rich media case study production)	# total design practicess, modern management consultancy and creative practice methods used	# total actions, research outputs, design practices, modern management consultancy, and creative practices achieved
Off the Rails Arthouse	1	1	2	4	24

Notes:

- Design practices were defined as creating stakeholder maps, engagement blueprints, user journey touchpoint diagrams, etc.
- Modern Management Consultancy Tools were defined as the use of tools such as the business model canvas, or reviewing others' practices via looking at case studies or visits.
- Creative practices undertaken included storytelling, brainstorming, and creating rich media assets

Figure 6.4.4.1 above, shows that OTRA used two creative practices, one design practice, and one modern management consultancy tool. Documentation that was submitted to the AmbITion Scotland project, in confidence, such as business plans and reports, were scanned for evidence of these tools and practices. This was used to validate the statements in the case study narratives. In total, OTRA used four creative and design practices, and modern management consultancy tools.

Across the case studies dataset, forty six instances of using creative and design practices, and modern management consultancy tools were achieved in total by sixteen organisations. This equates to an average figure of 2.87 instances per organisation. Almost three creative practices, design practices, and modern management consultancy tools were utilised on average by organisations that had undertaken *The AmbITion Approach* and that achieved adaptation.

6.4.5 Totals of creative and design practices, and modern management consultancy tools used impact the likelihood of Transformation

The organisations were categorised according to whether they achieved Transformation and Adaptation, or Adaptation only, resulting in the following matrix, figure 6.4.5.1, below:

Figure 6.4.5.1: Matrix of creative and design practices, and modern management consultancy tools used, averaged over Transformation achieving and Adaptation only achieving organisations

Transformation & Adaptation achieved	# total of design practices, modern management consultancy & creative practices
Off the Rails Arthouse	4
Art in Healthcare	5
Stills Ltd	4
Pitlochry Festival Theatre	4
macrobert Arts Centre Ltd	4
Wee Stories	1
Uist Wool	4
National Youth Choir of Scotland (NYCoS)	3
Creative Stirling CIC	3
Average (base of 9)	**3.56**
Adaptation only achieved	**# total of design practices, modern management consultancy & creative practices**
Glasgow East Arts Company (Platform)	1
Artlink Central Limited	2
National Youth Orchestras of Scotland	2
Edinburgh International Science Festival	3
Lung Ha's Theatre Company	4
Scottish National Jazz Orchestra	1
Cupar Arts	1
Average (base of 7)	**2.00**

Once again, the evidence from the data was that organisations achieving Transformation had a higher average total use of the tools and practices (3.56), than the organisations achieving Adaptation only (an average of two tools and practices used). Utilising over 3.5 management consultancy tools, and design and creative practices, is more likely to result in the organisation experiencing Transformation.

6.4.6 Higher instances of action and research outcomes, modern management consultancy tools, design practices, and creative practices achieved, impacts the likelihood of Transformation

A final tally of totals - of action and research outcomes added to the totals of modern management consultancy tools, design practices, and creative practices utilised - proved that the total number overall impacted the likelihood of Transformation. The organisations were categorised according to whether they achieved Transformation and Adaptation, or Adaptation only, resulting in the following matrix, figure 6.4.6.1, below:

Figure 6.4.6.1: Matrix of total number of action and research outcomes, modern management consultancy tools, design practices, and creative practices achieved, averaged over Transformation achieving and Adaptation only achieving organisations

Transformation & Adaptation achieved	# total of actions, research outcomes, design practices, modern management consultancy & creative practices
Off the Rails Arthouse	24
Art in Healthcare	12
Stills Ltd	15
Pitlochry Festival Theatre	11
macrobert Arts Centre Ltd	7
Wee Stories	9
Uist Wool	6
National Youth Choir of Scotland (NYCoS)	10
Creative Stirling CIC	11
Average (base of 9)	**11.67**
	# total of actions, research outcomes, design practices, modern management consultancy & creative practices
Adaptation only achieved	
Glasgow East Arts Company (Platform)	9
Artlink Central Limited	8
National Youth Orchestras of Scotland	7
Edinburgh International Science Festival	11
Lung Ha's Theatre Company	13
Scottish National Jazz Orchestra	7
Cupar Arts	11
Average (base of 7)	**9.43**

Organisations achieving transformation had a higher average total number of action and research outcomes, modern management consultancy tools, design practices, and creative practices achieved (11.67), than organisations achieving Adaptation only (an average of 9.43 total). Achieving over eleven action outputs, research outcomes, and utilising more modern management consultancy tools, and design and creative practices was more likely to result in the organisation experiencing Transformation.

6.4.7 Evidence for answering the third research question: could the concepts, methodologies and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age?

The rich media case study and business plan reviews, and the tallying and averaging exercises completed on the data from this enabled the third research question of the PhD to be answered:

- could the concepts, methodologies, and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age?

The results above show that higher instances of action and research outputs resulted in Transformation. There appears to be a relationship between higher instances of using design and creative practices, and modern management consultancy tools of *The AmbITion Approach* resulting in Transformation. Organisations that utilised less than 9.43 of the tools and practices achieved Adaptation, and generated new practical and theoretical knowledge. Those organisations with a higher average of 11.67 achieved Transformation.

6.4.8 Analysis of evidence on Sharing Practice

The rich media case studies data was explicit evidence of Sharing Practice. Published in the public domain online, sixteen of the original twenty one organisations (just over three quarters, 76.2%) made their experience and

learnings available. The Sharing Practice code in the comparison study increased by 100% (discussed in 6.2.5 and 6.2.6, above), defined as organisations being open enough online to be sharing practice, learning, advice, contacts, methods - with some or all stakeholders. The reflectionnaire completed by nineteen organisations also gave further insight into Sharing Practice. Figure 6.4.8.1 below shows the quantitative results of a reflectionnaire question, which asked participant organisations which of the following resources and networks they had used.

Figure 6.4.8.1 - Chart showing resources and networks used by participant organisations undertaking T*he AmbITion Approach*
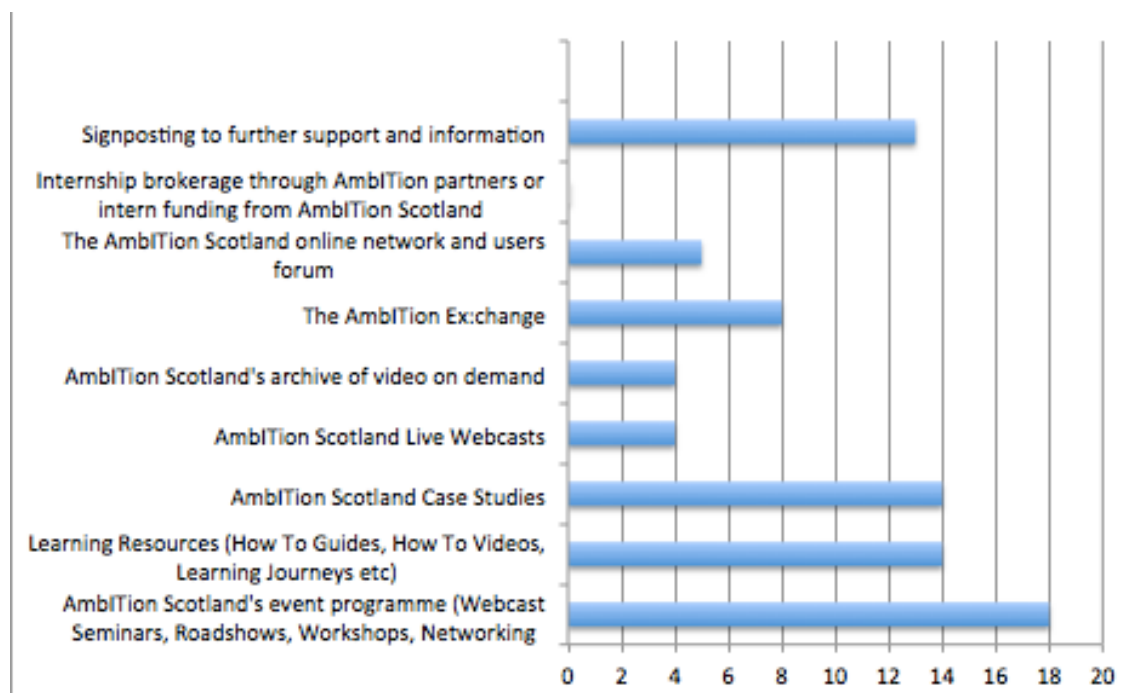
Base – 19 respondents Source – AmbITion Scotland 2014

Notable results, in relation to Sharing Practice, were the fourteen (out of nineteen) organisations that stated that they had engaged with AmbITion Scotland case studies (73.7%). 8 (or 50%) organisations engaged with the AmbITion ex:change, an online marketplace of digital development project ideas, and five organisations (or 26%) had made use of the online network and users forum to ask questions or advice of the network.

Sharing Practice, by explicitly publishing rich media case studies, was undertaken by over three quarters of organisations undertaking *AmbITion Approach* change journeys. Viewing others' case studies was also undertaken by just under three quarters of participants. Half of the participant organisations took an interest in other organisations' digital development projects, and just over a quarter explicitly made use of the users forum in the online network to ask a question of the network. The analysis of the evidence gathered about organisations' behaviour around sharing their own, and others', learnings shows open innovation being practised in a structured online network, enabled by the information system.

6.5 Conclusion

Early empirical work (chapter 4) introduced to *The AmbITion Approach* framework participatory action research methods and tools, and integrated into the approach Coghlan and Rashford's change categories (Coghlan and Rashford, 2006). These enabled the description of the extent to which organisations developed: whether they experienced first order (change), second order (adaptation) or third order (transformation) change. Further work tested, and studied the concepts, methodologies, and tools of a novel approach to organisational change appropriate to the digital age, in the context of the creative sector in Scotland. The summary of the main findings of empirical studies were as follows:

- *The AmbITion Approach* successfully built skills in adaptation (increasing confidence, capacity, and capability) in participant organisations, to deal with disruptive digital technologies. Cumulatively, 84.22% of enterprises in the study adapted to deal with disruptive digital technologies.

- 47.36% of organisations that undertook *The AmbITion Approach* during the study experienced second order change, seeing their business building the criteria to become adaptive to digital disruption.

- 15.78% of organisations experienced first order change, as they were at the beginning of a period of implementing change, having spent their *AmbITion Approach* journey planning, rather than acting.

- An unexpected and significant result was that 36.86% of organisations that undertook *The AmbITion Approach,* experienced third order change, seeing transformation of their enterprise into a digital business. The significant majority of organisations engaging with *The AmbITion Approach* adapted, but over a third experienced not just adaptation, but transformation.

- Practical actions and theoretical knowledge was generated by organisations undertaking *The AmbITion Approach*. Organisations achieving over nine action outputs or research outcomes were more likely to achieve transformation.

- Organisations that used over 3.5 design and creative practices and modern management consultancy tools were more likely to achieve transformation.

- Three quarters of the organisations in the study shared learnings and practice publicly, showing open innovation being practised by them in a structured online network, enabled by the information system.

This study has completed an effective comparative longitudinal investigation of the experience of nineteen enterprises undertaking digital change. Chapter seven, below, discusses in more detail the implications of the analysis to form conclusions to the research questions of the study.

7. Discussion

The purpose of this chapter is to reflect on the findings of the research presented in this thesis. The first section discusses the conclusions of the studies (chapters 5 and 6) and their contribution to the research questions, as well as the considering the contribution to the research questions of the early empirical work (chapter 4).

Section two goes on to discuss the validity of the results, through the application of the validity and quality criteria created by earlier empirical work (see 4.1.9, above), which are suitable to apply to a participatory action research study.

Section three discusses the external impact and validity of this study's work on *The AmbITion Approach*, considering how generalisable and transferable it is in practice and in the academy.

Section four offers conclusions to the chapter.

7.1 Findings from all empirical work to inform the research questions

7.1.1 Overview and review of research questions

By collecting data about the nineteen creative sector organisations that completed *AmbITion Approach* change journeys via research instruments embedded within *The AmbITion Approach's* information system, it was possible to undertake a longitudinal enquiry which provided data for analysis to give deep insight into the research questions. The codes developed through thematic analysis for the benchmarking study were applied to the entire qualitative data corpus of the longitudinal study. This data was gathered through research instruments designed to interrogate organisations' progress, and change achieved at the beginning and end of their *AmbITion Approach* journeys. Chapters 5 and 6 were a description of the results and analysis of data collected over a two year period.

The largest of the final studies, a comparison study (chapter 6), applied the grounded theory approach established during the benchmarking study (chapter 5). CAQDAS software NVivo 10 and SNAP online survey software facilitated the mixed methods quantitative and qualitative analysis of data in reflectionnaires, and rich media case studies. Coding the data with codes established in the baseline study's thematic analysis via NVivo, enabled the analysis of the latent themes through simple queries of parent codes and the child codes clustered beneath them.

Two smaller final studies examined the rich media case studies and business plan dataset. The first of these assessed the implications and impacts of the participatory action research methods embedded in *The AmbITion Approach;* and the second assessed the implications and impacts of the modern management consultancy tools, design and creative practices embedded in *The AmbITion Approach.*

Together, the three final studies established a comparative analysis of the data, which offered conclusions for the research questions. In studying the concepts, methodologies, and tools of *The AmbITion Approach* in a longitudinal study with creative businesses, this PhD's research questions have sought to examine:

1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?

2. Is new practical and theoretical knowledge generated by the enterprises that engage with *The AmbITion Approach*?

3. Could the concepts, methodologies and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age?

7.1.2 Conclusions to the first research question: to what extent did the enterprises that engaged with *The AmbITion Approach* adapt to deal with disruptive digital technologies?

The largest of the final studies (6.2, above) provided evidence to answer the first research question. It compared a dataset gathered from organisations at the end of change journeys, against a benchmark describing where organisations were at, at the beginning of their *AmbITion Approach* change journeys. Collecting the data through an online information system enabled the organisation and analysis of a great deal of qualitative data. The mixed methods analysis of the datasets and the comparison between them, proved that through undertaking *The AmbITion Approach*, they built skills in adaptation to deal with disruptive digital technologies. Organisations being prepared to completely change and transform what/how they do things to become a digitally enabled business, can be described as having experienced third order change, or transformation. Establishing the different levels of categorisation of change through applying Coghlan and Rashford's definitions has facilitated more nuanced conclusions about the type and extent of change organisations achieved. This enabled the answering of the first question, to what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies? The codes generated by the thematic analysis allowed a grounded analysis of the organisations' qualitative data, which showed increases in the notions of digital Capability, Capacity, Confidence, and Adaptability and Legibility. Organisations that experienced increases in their digital Capability, Capacity, Confidence, and Adaptability and Legibility all adapted, seeing first and second order change. The categorisations and the codes are what enabled the nuanced analysis of the extent to which organisations changed.

Cumulatively, 84.22% of organisations experienced third or second order change. 47.36% of organisations (nine) that undertook *The AmbITion Approach* experienced second order change, seeing their businesses building the criteria to become adaptive to digital disruption. Many of these organisations were city-based SMEs, but a larger sample size would be needed to ascertain whether location or scale of enterprise affected the likelihood of adaptation/transformation.

15.78% of organisations (three) experienced first order change, as they were at the beginning of a period of implementing change, having spent their *AmbITion Approach* journey planning, rather than acting.

An unexpected and significant result was that 36.86% of organisations (seven) that undertook *The AmbITion Approach,* experienced third order change, seeing the transformation of their enterprise into a digital business. The significant majority of organisations engaging with *The AmbITion Approach* adapted, but over a third experienced not just adaptation but transformation. The percentage statistics have provided an interesting measure, but the sample size of nineteen organisations is too small to justify conclusive statements. Looking at the conclusions to the other research questions supports the indicative conclusions with further insight (7.1.3 and 7.1.4, below) into why a significant number of organisations experienced transformation, becoming digital businesses.

As an interpretive study, this enquiry has not measured whether organisations without contact with *The AmbITion Approach* would have adapted or transformed anyway. However, recent surveys of the wider sector in England provide some comparable data to give insight into this. It has already been clarified that digital development support for English cultural organisations is focused on digital innovation (see 1.1, above) and 10% of organisations have been able to take advantage of this, and transform. The *Digital Culture 2014* survey looked at 947 English cultural organisations. 55% of cultural organisations were reportedly undertaking activities that this study would have described as change, but of the first order. They were making improvements in products and services they were already engaged in: the survey reported organisations optimising their existing web presence for mobile, and enhancing their use of social media to engage audiences. *Digital Culture 2014* reported increasing numbers of cultural enterprises enhancing their data capabilities (36% up from 30% in 2013). This study would define this as a second order change, or an adaptation that could lead to new business models, and which required lateral thinking (it was not a traditional activity). The report also notes the percentage of organisations engaging with the digital innovation opportunities (the 10% 'cultural

digirati'). This study would have classified this group as experiencing third order change, implementing new business models to transform the business (MTM London, 2014). The Digital Culture 2014 report had a far higher base of 947 respondents, compared to the nineteen cases this PhD study reviewed. However, as an arbitrary comparison, the digital development performance of English cultural organisations, as measured by the *Digital Culture 2014* report, can be compared against the digital development performance of Scottish creative organisations that participated in *AmbITion Approach* change journeys. Figure 7.1.2.1 below shows the levels of change achieved amongst a large group of organisations receiving no digital development support, compared to a small group of organisations receiving support to undertake *The AmbITion Approach:*

Figure 7.1.2.1: Comparison of levels of change achieved by different digital development approaches

Level of change achieved	% English cultural organisations with no engagement with change or organisational development programmes	% Scottish creative organisations that have undertaken *The AmbITion Approach*	Notes
First order change	55	15.78	
Second order change (adaptation)	36	47.36	
Third order change (transformation)	10	36.86	The 10% 'cultural digirati', were beneficiaries of digital innovation support and funding
	101	100	*Digital Culture 2014* report rounded all percentages up to round figures, giving a 101% total
Sample size	947	19	

Indicatively, 10% of English organisations achieved third order change. This group did receive digital innovation support, and third order change was achieved, but by a much smaller percentage than organisations undertaking *The AmbITion Approach*. The remaining 90% of English organisations received no support, and a significant percentage of organisations (36%) achieved second order change, and adapted anyway. A larger percentage (47.36%) of organisations that had received support to undertake T*he AmbITion Approach* achieved second order change. 55% of those receiving no support achieved first order changes, developing digital products or services ad hoc, a much higher percentage than the 15.78% *AmbITion Approach* organisations that only achieved first order change.

Indicatively, the approach of no support results in a majority of organisations making first order changes anyway, and over a third of organisations making second order changes anyway. The 10% of English organisations achieving third order change were financially supported. Scottish organisations undertaking *The AmbITion Approach* were also supported, but a much higher percentage, over a third, 36.86%, achieved transformational, third order change. It indicatively appears that comparatively, *The AmbITion Approach* is three-fold more likely to achieve transformation, and third order change in creative businesses, than development approaches supporting only digital innovations.

7.1.3 Conclusions for the second research question: is new practical and theoretical knowledge generated by the enterprises that engage with *The AmbITion Approach*?

The second research question asked: is new practical and theoretical knowledge generated by the enterprises that engage with *The AmbITion Approach*? The implication of participatory action research methods embedded in *The AmbITion Approach* was that organisations would see two types of impact: actions (outputs) and research/theoretical learning outcomes. The rich media case studies and business plan data was analysed, to investigate the extent to which new practical and theoretical knowledge was generated.

Sixty six actions were achieved in total by sixteen organisations, and sixty nine research/learning outcomes were also achieved. Organisations achieving lower than 7.43 action outputs and research outcomes, and utilising modern management consultancy tools, and design and creative practices, achieved just adaptation. Organisations achieving over 9.11 action outputs and research outcomes were more likely to achieve transformation. The review of rich media case studies and business plans revealed that organisations which utilised two or less of the modern management consultancy tools and creative and design practices achieved adaptation, and generated new practical and theoretical knowledge. However, organisations utilising over 3.56 tools and practices achieved transformation.

The "what" the organisations achieved as action and research outcomes does not seem particularly important or significant. The action and research outcomes achieved by organisations achieving transformation were a mix of digital developments impacting all aspects of the enterprise: business model, audience/customer engagement, organisational operations, and core product. For example, figure 7.1.3.1 below (and repeated in larger scale for readability in Appendix 18, below) shows a description of the actions and research outputs achieved by organisations that transformed:

Figure 7.1.3.1: Description of the actions and research outputs achieved by organisations that transformed

Organisations experiencing transformation	Actions (new digital practices) evident in case study	# number of actions	Research/theoretical learnings evident in case study	# number of theoretical learnings	# total actions and theoretical learning (research) outputs
Off the Rails Arthouse	CRM, CMS, website, hosting, cloud services, online payments, digital archiving, social media, broadband, staff digital skills training, online book keeping, e-newsletter, SEO & analytics	13	Audited activities. Digital strategy developed with brainstorm and BMC, analysed market and customers with engagement blueprint, identified our resources and capacity, evaluated operating practices. Revisited vision and mission. We learned quite a lot about each other's strengths, weaknesses, hopes and fears - this has pulled us together more strongly as a group.	7	20
Art in Healthcare	Adressed problems and concerns in our digital platform through a new website(Comms), CRM, and database management system	3	Searched out inspiration and opportunities from other AmbITion case studies. Audited our activities. Defined stakeholders and customers via engagement blueprint. Digital mapping exercise and digital strategy developed using BMC and brainstorm.	4	7
Stills Ltd	Digital communications training, CRM, website, cloud based server and digital archive storage/backup	5	Business audit, analysis of stakeholder needs via engagement blueprint, back office audit, future business requirements via brainstorm, digital mapping, development of new digital strategy via BMC.	6	11
Pitlochry Festival Theatre	Video content creation, digital programmes, server virtualisation, BYOD	4	Digital audit, customer and stakeholder analysis by engagement blueprint, digital strategy developed using BMC and brainstorm, implementation plan.	3	7
macrobert Arts Centre Ltd	Website integrated with cloud based ticketing system. Simulcasting hardware implemented.	2	Digital audit, customer and stakeholder audit via engagement blueprint, digital strategy and business plan and roadmap via BMC and brainstorm. Feasibility study around simulcasting.	3	5
Wee Stories	Website and social media.	2	Digital audit, digital strategy and business case for further developments developed via brainstorm, implementation plan.	3	5
Uist Wool	Podcasting	1	Customer segmentation via engagement blueprint, vision and mission revisited during brainstorm for digital strategy via Business Model Canvas, implementation plan, budgets and tech specs	5	6
National Youth Choir of Scotland (NYCoS)	CRM system, website, social media,	3	Stakeholder mapping via engagement blueprint, digital audit, techplan, tech spec, digital strategy via brainstorm.	5	8
Creative Stirling CIC	Mailchimp e-news letter, CiviCRM, CMS driven website, shared office files, cloud backup (MS 365), EPS, Paypal, room/even booking system	8	Customer and market review via engagement blueprint, digital audit, digital strategy document developed through brainstorming and revisiting vision and mission, tech spec, fundraising plan, implementation plan, new vision and mission	7	13

Compared to the action and research outcomes of organisations that achieved adaptation only, the "what" they achieved is not different. For example, figure 7.1.3.2 below shows the description of the actions and research outputs of Glasgow East Arts Company, an enterprise achieving adaptation:

Figure 7.1.3.2: Description of the actions and research outputs that Glasgow East Arts Company achieved

Organisation	Actions (new digital practices) evident in case study	# number of actions	Research/theoretical learnings evident in case study	# number of theoretical learnings	# total actions and theoretical learning (research) outputs
Glasgow East Arts Company (Platform)	Mobile website, online ticketing, digital smart mobile devices for community work, broadband infrastructure upgrade	4	Digital audit, customer survey, digital strategy developed via brainstorm, implementation plan	4	8

It can be concluded that the "what" was done for adaptation and transformation is similar, and not a differentiator. The numbers of action and research outputs is a

differentiator in whether adaptation or transformation is achieved by organisations. This dataset needs examining again in more detail to work out why higher numbers of actions and research outcomes create transformation. The organisations that transformed achieved action or research outputs in all areas of their business. For example, macrobert Arts Centre improved all areas of the enterprise through both action and research outcomes:

Area of enterprise	Action achieved	Research output
Audience engagement	Simulcasting implementation meant new theatre product on cinema screens attracting new audience.	Customer and stakeholder engagement audit
Business model	Simulcasting new income stream	Business Model Canvas and digital strategy development
Organisational operations	Cloud based ticketing system increased operational efficiency, and data analysis	Digital audit, technology implementation roadmap
Core product/service	Simulcasting hardware purchased to enable delivery of new product.	Feasibility study on simulcasting

However, organisations that achieved adaptation only tended to focus actions and research in one or a couple of areas of their enterprise. For example, when the action and research results of Glasgow East Arts Company are broken down into the different areas of the business, just a few areas of it saw improvement, rather than all areas of it:

Area of enterprise	Action achieved	Research output
Audience engagement	Mobile website, digital smart mobile devices for community work	Customer survey
Business model		Digital strategy development
Organisational operations	Online ticketing, broadband infrastructure upgrade	Digital audit, implementation roadmap
Core product/service		

This analysis is useful, as the following can be concluded about what causes transformation. It is not "what" an organisation's actions or research outputs were, as these are similar across transformed and adapted organisations (e.g. an action output might be implementing online ticketing, a research output might be developing a digital strategy). It is "where" in the business the actions and research outputs are achieved. If they are achieved across all areas of enterprise

(audience engagement, business model, organisational operations and core product/service), then it transforms. Further evidence from the external evaluation supports the notion that business transformation is achieved when it addresses the whole organisation, and so validates this measure within the framework. The external evaluation described the relevance of the learning as outcomes which were "holistic":

> Some projects are driven as much by a general sense that they 'need to do something about digital', rather than specifying any tangible business model options. AmbITion is playing a valuable role here in utilising digital as a proxy to explore wider business and organisational development issues. In other words, the outcomes are often more holistic than business-model centred (Fleming, 2014, p. 19).

Results from a March 2014 survey of 910 top executives in U.S based multinational companies provided evidence to suggest that business transformation occurred when change is holistic. The executives surveyed expressed that they instructed their businesses to transform when there were multiple triggers across all areas of the enterprise. Triggers were a number of significant drivers changing at the same time, and more changing more rapidly than they used to (Moores and Gregory, 2000). It is an understanding that digital disruption affects all areas of an enterprise that creates the driver for executing holistic change across all areas of a business to achieve transformation. The external evaluation inferred that *The AmbITion Approach* encouraged organisations to consider digital across the whole of organisation:

> AmbITion has played a vital role in introducing the possibilities of digital technology… digital is positioned as a proxy for other business and organisational development processes – a means to a more sustainable, interactive and high quality end. This is a key message for the wider arts and cultural sector of Scotland (Fleming, 2014, p. 18).

Organisations applying *The AmbITion Approach* to all aspects of their business generated practical and theoretical knowledge and achieved transformation.

7.1.4 Conclusions to the third research question: could the concepts, methodologies and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age?

The third research question asked could the concepts, methodologies and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age? The case study dataset was analysed to investigate whether the modern management consultancy tools, design and creative practices of *The AmbITion Approach* influenced the extent of change achieved by participants. Across the case studies dataset, forty six instances of using creative and design practices, and modern management consultancy tools were achieved in total by sixteen organisations. Again, the evidence from the data was that organisations achieving transformation had a higher average total use of the tools and practices (3.56), than the organisations achieving adaptation only (an average of two tools and practices used). Utilising more modern management consultancy tools and design and creative practices was more likely to result in the organisation experiencing transformation. A final tally of totals - of action and research outcomes added to the totals of modern management consultancy tools, design and creative practices utilised - proved that the total number overall impacted the likelihood of transformation. Organisations achieving transformation had a higher average total number of action and research outcomes, modern management consultancy tools, design and creative practices achieved (11.67) than organisations achieving adaptation only (an average of 9.43 total). Achieving more action outputs, research outcomes, and utilising more modern management consultancy tools, and design and creative practices was more likely to result in the organisation experiencing transformation. The 47.36% of organisations using less concepts, tools, and methods still achieved digital adaptation. The 36.86% of organisations that achieved transformation embraced more of the concepts, tools, and methods of *The AmbITion Approach*, as already discussed above. This proves the concepts, methodologies, and toolkits suitability as a framework for business transformation in a digital age.

7.2 Methods for testing the quality and validity of the results of the studies and empirical work

7.2.1 A new framework to prove and validate change through action research

As discussed in section 4.1.8, above, participatory action researchers are interested in whether knowledge generated by the research is valid and trustworthy, and also in the action and change the research elicits. Analysis (see 6.3.3, and 7.1.2, above) showed that organisational change, adaptation, or transformation was achieved. Data to test the quality and validity about change and transformation have been gathered by *The AmbITion Approach's* framework of research tools/instruments (as described in detail in 4.3, above). Section 4.1.9, above, created a new framework to prove and validate change through action research, and is a contribution to knowledge that needed testing in practice. The method for the test was to include *The AmbITion Approach's* data gathering research tools and their resultant data sets to Coghlan and Rashford's change categories, cross-referenced against Anderson and Herr's Goals of Action Research and Validity Criteria. The processes in the research tools adopted reflective social sciences methods: document analysis, rich media case study analysis, and online surveys from participants. Analysis of data from these different data gathering methods, especially across a number of case studies, triangulated the themes emerging via grounded analysis of the data sources. These are listed as the methods and evidence of the change, validity, and quality criteria - proposed altogether as a new robust research and action framework for the analysis of the quality, validity, and change achieved by action research based development programmes. It is detailed in Figure 7.2.1.2, below (and repeated in larger scale for readability in Appendix 18, below), together with this study's research questions, to show how it applied to the study:

Figure 7.2.1.2: A robust research and action framework for the analysis of the quality, validity, and change achieved by action research based development programmes

Anderson & Herr's Goals of Action Research and Validity Criteria (2005)		Coghlan & Rashford's	*AmbITion Approach* research tools	Research question
Goals of Action Research	**Quality/Validity criteria**	**Type of change achieved (2006)**	**Data gathered/evidence**	
Generation of new knowledge	Dialogic and process validity	Third order	Are rich media case studies created? How much are case studies viewed online and shared in live environments?	2&3. What new practical and theoretical knowledge is generated? Could the concepts, methodologies and toolkits be a framework for business transformation in a digital age?
Achievement of action-oriented outcomes	Outcome validity	First order	Reflectionnaire results, rich media case study review	1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?
The education of both researcher and participants	Catalytic validity	Second order	How many *AmbITion Approach* organisations go on to apply for other funds?	1&2. What new practical and theoretical knowledge is generated & To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?
Results relevant to local setting	Democratic validity	First order	Business and Implementation Plans, rich media case study	1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?
A sound and appropriate research methodology	Process validity	Third order	Triangulation of different data, showing the impact from a number of different cases and a number of different data sets	3. Could the concepts, methodologies and toolkits be a framework for business transformation in a digital age?

The new framework will now be applied to this study to assess its quality and validity.

7.2.2 Goal 1 of action research: generation of new knowledge

The *AmbITion Approach*'s research tools collaboratively were used to test process and dialogic validity against the action research goal of generation of new knowledge. They also identified if second or third order change was achieved: when organisational adaptation and/or transformation was created, through the generation of new knowledge and action.

Change was achieved in each organisation, and generated new knowledge for peers, as well as the organisation itself. This was a measure of dialogic validity. The emergence and analysis of the code Sharing Practice (see chapters 5 and 6, above) was evidence of the theme in the data corpus. The viewing of rich media

case studies (reports of new knowledge) online by website visitors was evidence of peer review. IP addresses of page viewers showed from which country they were viewing the content. Good numbers of rich media case study views from Scottish IP addresses also proved dialogic validity. The extent to which new knowledge was shared wider afield than Scotland was measured through gathering unique visit data via Google Analytics about the geolocations of online viewers of the rich media case studies (this is discussed in further depth below, in section 7.3).

Organisations delivering business and implementation plans, creating rich media case studies, and completing reflectionnaires is a measure of process validity. Of twenty one organisations, nineteen completed reflectionnaires and sixteen completed rich media case studies. The process was seriously undertaken by the majority, with most developing business plan and implementation plans. Knowledge was generated because the process was undertaken, and can therefore be said to be valid. This data also provided the evidence that proved both second and third order change was achieved through the generation of new knowledge - organisational adaptation and/or transformation, as discussed already in chapter 6.

7.2.3 Goal 2 of action research: achievement of action-orientated outcomes

The AmbITion Approach research tools of the reflectionnaire, and the rich media case studies, gathered data about to what extent actions occurred, and showed first order change. First order change is when specific change occurs within existing ways of thinking, leading to improvements in products or services. Measuring how many *AmbITion Approach* journeys reached their end was straightforward: organisations created an outcome - they completed the reflectionnaire, and created a rich media case study. These mechanisms also reported the action-oriented outcomes they achieved. 19/21 participants completed reflectionnaires, 16/21 completed rich media case studies. These data showed that resolutions were reached to solve the initial problem that led to an

organisation undertaking an action research in the first place (Brooks and Watkins, 1994) - the clearest indicator of an outcome.

7.2.4 Goal 3 of action research: results relevant to local setting

The AmbITion Approach research tool of the initial business case, mapped against the developments described in the business plans developed later, or rich media case studies created at the end of change journeys, identified democratic validity, and first order change. The documentation reflected how the changes were specifically relevant to the local setting through narrative, as discussed above in chapters five and six.

7.2.5 Goal 4 of action research: the education of both the researcher/facilitator and the participants

To prove catalytic validity, second order change must be proven. This is where new business and operational models were considered, and where new ways of thinking and acting were considered. All participant organisations involved showed a deeper understanding of the reality under study. Chapters five and six compared the movement forward by participants, by collecting data at the beginning and ends of participant organisations' change journeys. "The degree to which the research process reorients, focuses, and energises participants toward knowing reality in order to transform it" (Lather, 1986, p. 272).

7.2.6 Conclusion

Organisations undertaking *The AmbITion Approach* proved the validity and quality of the experience, as demonstrated through the application of the robust research and action framework for the analysis of the quality, validity and change achieved by action research based change programmes. Section 4.1.9 above created this new framework to prove and validate change through action research, and it is a new contribution to knowledge that has been validated through its testing in practice here. This is discussed further in 8.2, below.

7.3 Evaluating the wider impact and external validity of *The AmbITion Approach*

7.3.1 Evaluating wider impact to measure the external validity of *The AmbITion Approach*

An organisation's undertaking of the approach has a wider impact than just on itself. Organisations are part of ecologies or systems that contain sequences and patterns of interaction and feedback loops (Senge, 1990). Networks devise collaborative ways of planning and taking action (Burns, 2007), and feedback on each other's actions. Wider impact was achieved as organisations were involved in inter-organisational work (or networking). Online, the information system put organisations undertaking *The AmbITion Approach* at the centre of a wider digital development programme for a sector in a nation (the creative sector in Scotland). Wider impact was also proven by the emergence of the theme Sharing Practice, and the many coded instances of it in the data of this research (as discussed in chapter 6, above).

Wider impact was also achieved as organisations openly published online rich media case studies. Quantitative analysis of website statistics software (via Google Analytics) showed that the case studies were viewed. They attracted unique visitors, and so shared the learnings more widely. These rich media resources – films created by the businesses, Prezi and Slideshare interactive presentations, documentary videos - were seen by over 17,000 unique visitors each year. In an average month, such as October 2013, there were over 1700 unique visitors to the site, as figure 7.3.1.1 shows:

Figure 7.3.1.1: October 2013 overview audience visits to getambition.com (Source: Google Analytics, 31st October 2013).
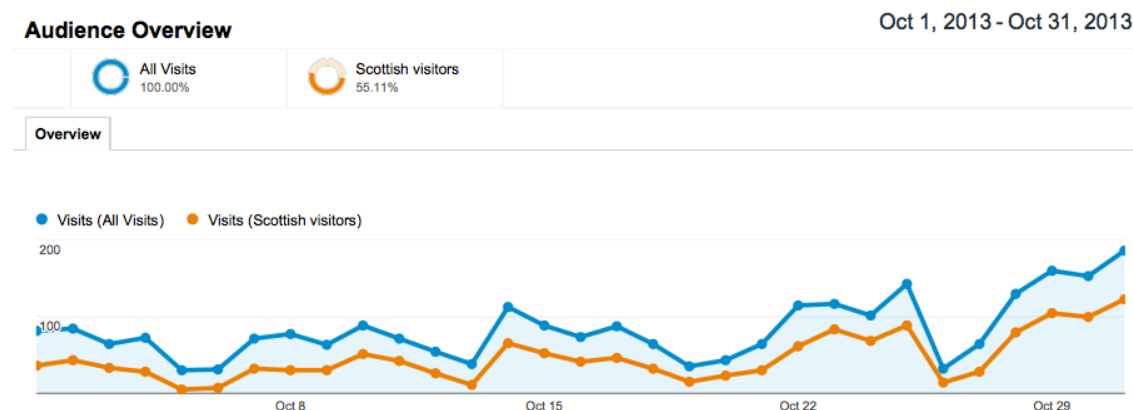
7.3.2 Peaks in online traffic when rich media case studies were published

During the period February 2014, the following rich media content was published:

- macrobert – case study in digital development (rich media report) - 5th February 2014
- Scottish Youth Theatre's organisational development case study (rich media report) - 17th February 2014
- Puppet Animation Scotland CRM/Database Case Study – Organisational Development Fund (rich media report) - 17th February 2014
- Pitlochry Festival Theatre's Digital Strategy (rich media report) - 24th February 2014
- Toonspeak Young People's Theatre – CRMS Development case study (rich media report) - 26th February 2014
- Toonspeak Young People's Theatre – Digital Content Development (rich media report) - 18th February 2014
- 5 Life Lessons Learnt: Abbot House's Organisational Development Grant (rich media report) - 27th February 2014

Evidence of the publication dates on getambition.com can be proved, by viewing the list view, shown in figure 7.3.2.1 below, of case study publications:[71]

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[71] See http://www.getambition.com/category/content/mith-fund-case-studies/page/3/, last accessed 11.08.14.

Figure 7.3.2.1: List view from getambition.com showing case study publication dates

Puppet Animation Scotland CRM/Database Case Study – Organisational Development Fund

By Rebecca Davis
17 February 2014

To CRM or not to CRM – a database rich media report In 2013 Puppet Animation Scotland were the happy receivers of Organisational Development Funding from AmbITion to source and implement a CRM/Database system to support the administration of our two annual festivals and other activities. It was a longer process than anticipated but very […]

Posted in: AmbITion Scotland (2011-2013), Client Relationship Management, Dance, Festivals, M:IT:H Fund Case Studies, Project Management, Screen, Slideshow

Comments Off

Scottish Youth Theatre's organisational development case study

By Kyriakos Vogiatzis
17 February 2014

The team at Scottish Youth Theatre received funding for an Organisational Development grant from the Make:IT:Happen fund. Learn more about their project below: Or, explore the presentation on Prezi: Scottish Youth Theatre's Make:IT:Happen fund report

Posted in: AmbITion Scotland (2011-2013), Digital Audio & Video, M:IT:H Fund Case Studies, Slideshow, Theatre

Comments Off

View all posts in Theatre

macrobert – case study in digital development

By Darrell Williams
5 February 2014

The Google Analytics for February 2014 (see figure 7.3.2.2 below) showed visitor peaks to the website corresponding with the dates when the above list of rich media case study content was published. (There was impact on visitor numbers the following day, if the post was published late afternoon). The peaks in traffic prove that the case studies were reviewed by online visitors, and so had wider impact, outside of the organisation publishing it.

Figure 7.3.2.2 Google Analytics report of online visitor interest in organisations' rich media case studies (Source: Google Analytics, 28ᵗʰ February 2014)
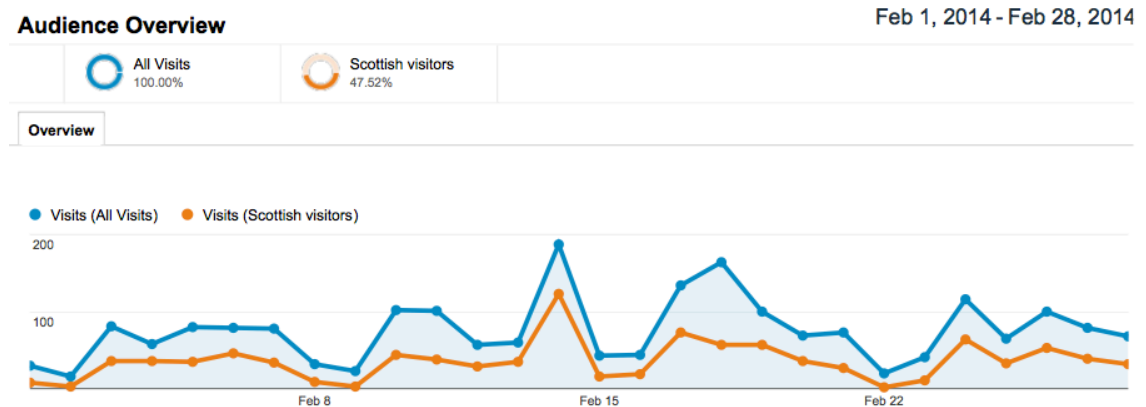
7.3.3 Dwell times and return visitors

The average dwell time on the getambition.com website was 3 minutes 57 seconds for Scottish visitors (for comparison, brand sites receive 2-3 minute dwell times, the BBC.co.uk website, with its abundance of longer-form video content, achieves the world's best dwell time at 10 minutes per visit)[72]. Scottish visitors that did engage spent more time with the content, bounced less, and tended to come back more as return visitors (see figure 7.3.3.1 below). These statistics proved that the visitors most interested in the content were from Scotland, but the average site dwell times and bounce rates were as significant as those received by brand sites (most of which invest in advertising to draw traffic).

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[72] See Smart Insights, http://smartinsights.com , last accessed 28.07.14.

Figure 7.3.3.1: November 2013 overview of dwell times to getambition.com showing Scottish visitors returning more to the content (Source: Google Analytics, 30th November 2013)
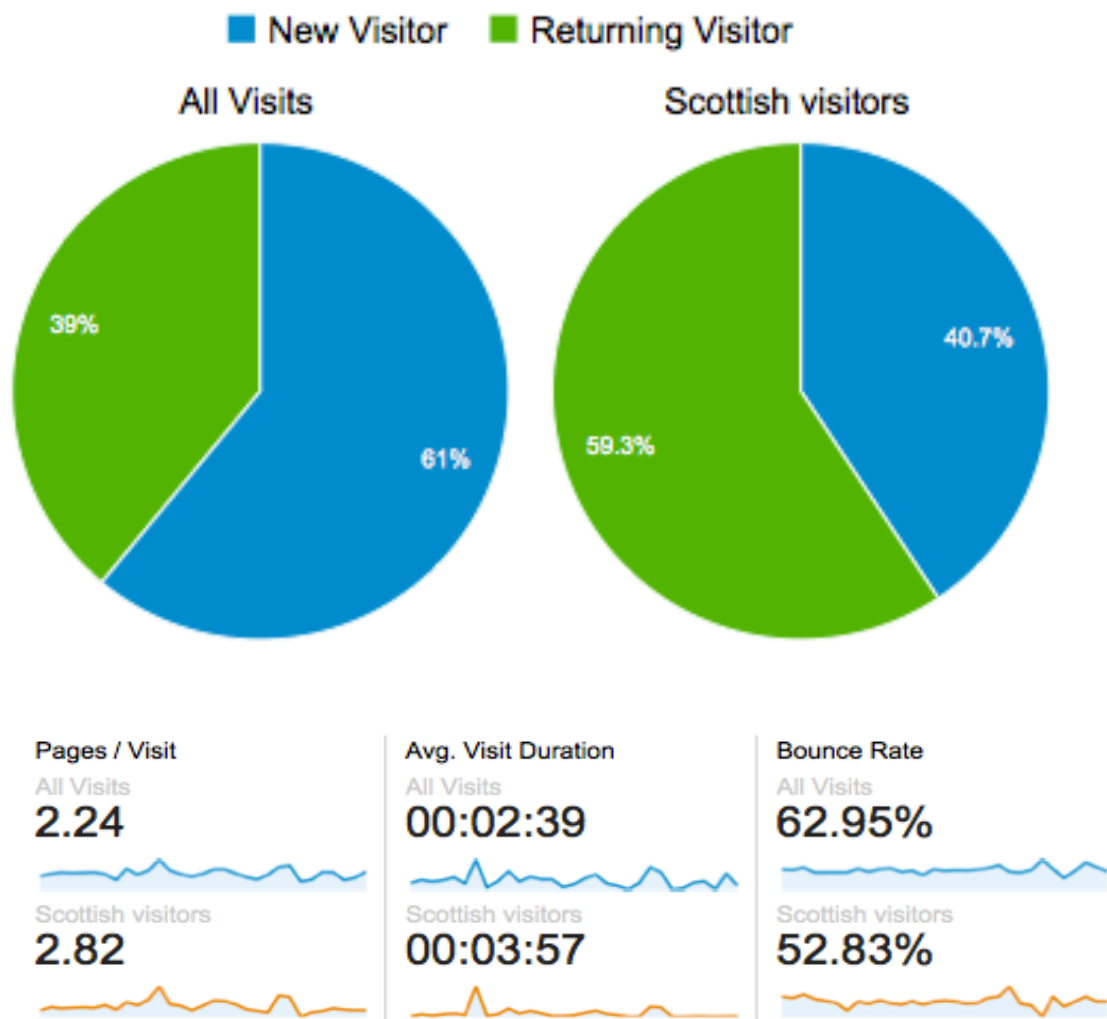
7.3.4 Scale of international visitor numbers and business-to-business focus of website usage

The scale of the online visitor numbers, as verified by Google Analytics statistics, showed that this case study material was viewed more widely, and not just by programme participants. Visitors were from locations further afield than Scotland. For example, during the month of November 2013, the Google Analytics overview of visits to the website showed c. 120 visits on an average weekday, of which just 54% were from Scotland. The dips at the weekend show that the resources were viewed most during weekdays as shown in figure 7.3.4.1. This

shows greater activity from visitors during work time, suggesting that the visitors are professionals at work (leisure sites have peaks at the weekend).

Figure 7.3.4.1: November 2013 unique visitor overview to getambition.com showing percentage of Scottish visitors and weekend dips (Source: Google Analytics, 30th November 2013)
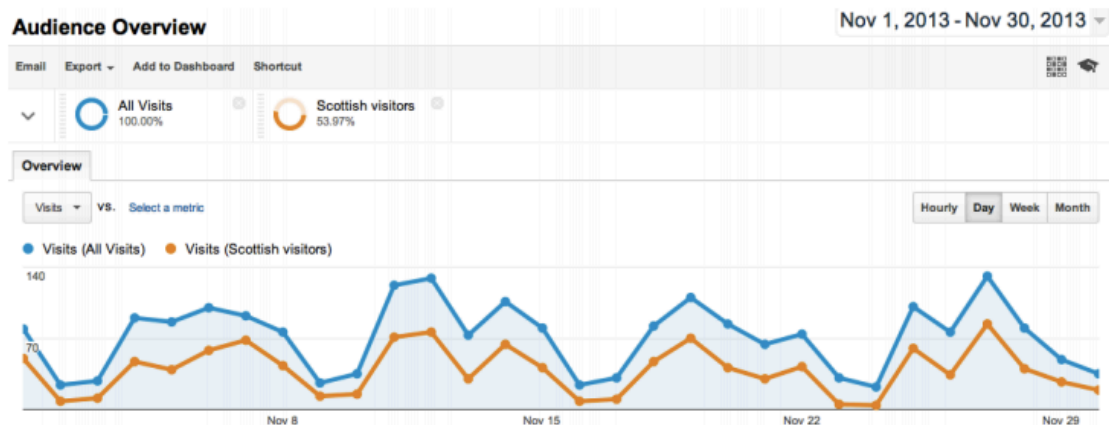
Other numerical statistics triangulate with website data proving wider impact. Google Analytics were also available from the proprietary social media platforms used: Facebook, Twitter, and BuddyPress. The BuddyPress getambition.com website network grew significantly in numbers from 802 members in April 2013 to 1,229 in October 2013. When the AmbITion Scotland programme was live (upto March 2014), social media profiles for #getambition, the hashtag and @getambition handle used across Facebook, Twitter, and Google+ grew month on month. For example, between August and September 2013, the social media impact summary report provided to Creative Scotland, figure 7.3.4.2, below, shows all social media platforms increasing or retaining impact:

Figure 7.3.4.2: Summary report of social media impact over time showing increased or retained impact

Social media	period 01/87/13 - 31/08/13	period 01/09/13 - 30/09/13
Tweets & retweets	24	24
Twitter followers	3301	3344
#getambition Hashtag traction (percentage uplift)	520.83%	517%
Klout	50	50
Facebook posts & interactions	41	107 (average daily reach per post)
Facbook likes	536	537
Mail Chimp mailing list	2018	2039
GetAmbITion.com Network members	1193	1228

(Source: September AmbITion Scotland Summary for Creative Scotland, 2013).

The impact of the information system and the website and social media platforms were noted by AmbITion Scotland 2012-14's external evaluators. The survey referred to in this quote from their report is one that they undertook with programme participants, independent to this study:

> 68% of the survey respondents had interacted with AmbITion face- to-face and/or through their online platforms and of these more than half found AmbITion's online platforms to be a really useful source of information about support opportunities and events. The increasing online resource has been accessed by over 33,000 unique visitors to www.getambition.com in 2013, up from 12,600 in 2012. Peer to peer signposting through the digital platforms is of real value to the arts and cultural sector. The AmbITion Scotland online network grew significantly from 802 members in April 2013 to 1,300 in December 2013 (Fleming, 2014, p. 19).

The information system of *The AmbITion Approach* is hosted in the cloud, and available in any nation. Practical resources are still available. This includes the online network and forums, and ex:change marketplace of ideas. The website of the information system, getambition.com is still live online, sharing all the practical knowledge of the participants. The social media channels of the information system (@getambition Twitter and GetAmbITion Facebook Page) are also still live. For example, at March 2015, a year following the AmbITion Scotland programme's closure, Google Analytics of the website showed significant ongoing engagement, and therefore wider impact. Without any marketing, or live programme to push engagement with the website, between March 1-30th 2015, the site received 857 unique visitors (see figure 7.3.4.3 below), and two new rich media case studies were uploaded as new content by organisations. 427 unique visits came from the UK (c. 50%). Dwell times were

reduced by about half in comparison to when the programme was live and driving traffic to the website, but the number of new visitors increased, suggesting a wider and more general interest in the content.

Figure 7.3.4.3: March 2015 unique visitor overview to getambition.com showing ongoing engagement (Source: Google Analytics, 30th March 2015)
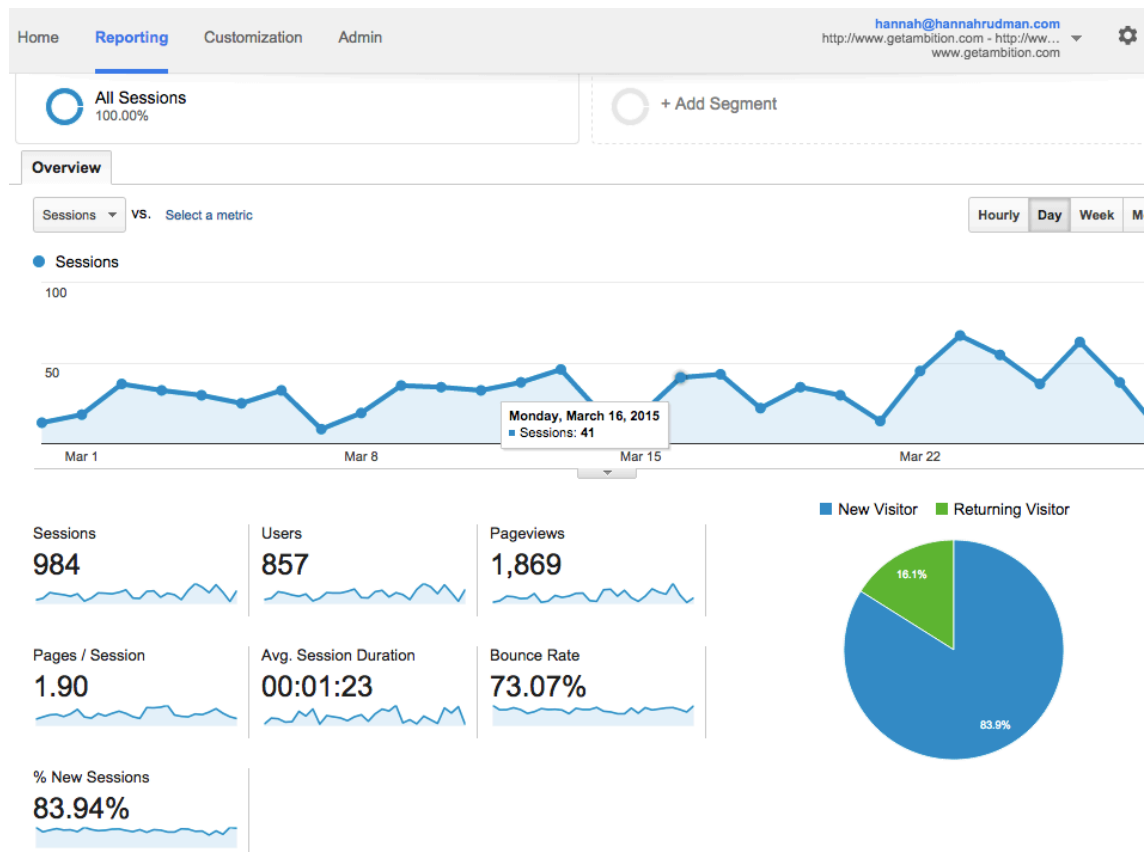
This validates the generalisability of the approach and the content about the approach.

7.3.5 Assessing wider sector impact in the UK

Other programmes, initiatives, and national and regional development agencies connected from their websites to getambition.com, which strengthens the notion of external validity and wider impact. The following external enterprises valued *The AmbITion Approach* content, by linking to it from their websites:

- Scottish Enterprise's *Interactive Scotland* (co-produced the national conference for the creative sector, Digital 2011 & 2012, with AmbITion, held at the SECC), getambition.com content was highly linked to from www.digitalconnections.org.uk, the conference website.
- Shetland Arts
- Highlands and Islands Enterprise
- GANE (Growing Audiences North East)
- Museums & Galleries Scotland
- Fife Council
- Western Isles Council
- Mission Models Money
- Cultural Enterprise Office
- Highland Museum Forum

The popularity of the content, as proven by its featuring on external websites, shows high levels of external validation, and the generalisability of the knowledge created by the participant organisations.

7.3.6 Assessing transferability via international impact

The international interest in *The AmbITion Approach,* as proven by the analysis of Google Analytics, also indicates transferability. During 2013 and 2014, scoping took place for *The AmbITion Approach* to be part of live and online programmes in other nations. AmbITion Español in Spain and Iberian American countries; and in Australia and New Zealand for AmbITion Australasia. Transferability of *The AmbITion Approach* can be conferred through interest from different geographical territories, where there are significant differences in:
- digital infrastructure;
- digital development confidence, capability, and capacity within organisations; and funding to support digital developments.

Figure 7.3.6.1, below, shows the geographic location of website visitors to http://getambition.com, with the majority of traffic coming from the UK, but also from the US and Australia.

Figure 7.3.6.1: Geographic location of website visitors in February 2014 (source: Google Analytics)

Country	Acquisition			Behavior		
	Sessions ↓	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration
	2,100 % of Total: 100.00% (2,100)	67.14% Avg for View: 67.14% (0.00%)	1,410 % of Total: 100.00% (1,410)	65.57% Avg for View: 65.57% (0.00%)	2.19 Avg for View: 2.19 (0.00%)	00:02:23 Avg for View: 00:02:23 (0.00%)
1. United Kingdom	1,527 (72.71%)	59.07%	902 (63.97%)	60.38%	2.37	00:02:47
2. United States	155 (7.38%)	94.19%	146 (10.35%)	82.58%	1.62	00:00:45
3. Australia	82 (3.90%)	64.63%	53 (3.76%)	57.32%	2.89	00:02:53
4. India	51 (2.43%)	96.08%	49 (3.48%)	76.47%	1.33	00:00:48
5. Brazil	27 (1.29%)	100.00%	27 (1.91%)	96.30%	1.04	00:00:03
6. Canada	24 (1.14%)	83.33%	20 (1.42%)	91.67%	1.21	00:00:58
7. Spain	21 (1.00%)	61.90%	13 (0.92%)	80.95%	1.33	00:00:07
8. France	15 (0.71%)	80.00%	12 (0.85%)	80.00%	1.60	00:01:21
9. Italy	11 (0.52%)	100.00%	11 (0.78%)	72.73%	2.09	00:01:04
10. Indonesia	10 (0.48%)	100.00%	10 (0.71%)	100.00%	1.00	00:00:00

The researcher also was invited to give keynote presentations internationally at creative sector conferences, to provide insight and analysis and describe the impacts and outcomes of *The AmbITion Approach* on Scottish enterprises. The following invited keynote addresses by the researcher also indicate the international transferability, generalisability, impact, and validity of the model of *The AmbITion Approach*:

February 2014 '*The AmbITion Approach* to digital development for the creative sector', **keynote address**, NARPACA Ticketing Professionals Conference 17-19 February, Brisbane.[73]

October 2013 'AmbITions in digital developments', **keynote address**. Colloquia of VI Encuentro de las Artes Escenicas, October 2013, Leon, Mexico

October 2012 '*The AmbITion Approach* to Digital Development', **keynote address**. II Conferencia Marketing de las Artes, 16th October 2012, Madrid.[74]

October 2011 '*Digital AmbITions*', **keynote address**. Conferencia Marketing de las Artes, 11th October 2012, Madrid.[75]

October 2011 '*The AmbITion Approach* to digital development in Scotland', **invited paper presentation.** Creative Entrepreneurship for a Competitive Economy conference, 18th October, Tallinn.[76]

Appendix 16 provides evidence of press, media, and social media interest in the content of the international keynote addresses.

The AmbITion Approach has also been reported in press articles in the UK and Australia, for example, a piece entitled 'Digital Fitness for All' highlighted the impact of *The AmbITion Approach* on the participant organisations, and was published in the culture sector magazine *Arts Professional* February 2014 edition 271 on digital development.[77]

Transferability of *The AmbITion Approach* can be assumed through serious international and press interest noted above. External validity and generalisability are proven by interest from across the sector in the rich media case study stories of participant organisations and in the online toolkit, as quantitatively proven through the software aided analysis via Google Analytics.

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[73] Watch the keynote at http://www.ticketingprofessionals.com.au, last accessed 11.08.14.
[74] Watch the keynote at http://www.youtube.com/watch v=Gt4NRyKJzAQ&feature=share&list=PLEBBUkE6ZAznFoZb7n3CitnFxoBGTeXp3&index=11, last accessed 11.08.14.
[75] Watch the keynote at http://vimeo.com/36112165, last accessed 8.12.14.
[76] See http://www.looveesti.ee/loomemajandusest/suendmused/icalrepeat.detail/2011/10/19/406/-/OWJiMWJhN2RlNTlmZTNmZWUxNDFkOGI3OGUzMWJlYzk=.html, last accessed 11.08.14
[77] See http://www.artsprofessional.co.uk/magazine/271/feature/digital-fitness-all , last accessed 14.05.14.

7.3.7 Validity through peer review in the academy

Presentation of the methodology and analysis of this research, and discussion of *The AmbITion Approach* as a framework for the transformation of the incumbent creative industries in a digital age has also taken place in the peer-reviewed environment of the academy. The following papers were invited for presentation at conferences:

June 2015	'A framework for the transformation of the incumbent creative industries in a digital age' (Rudman et al., 2015), **peer reviewed invited paper presentation.** 10th International Forum on Knowledge Asset Dynamics, 10-12th June, Bari, Italy. *(*Can be read in full in Appendix 17, below and there is potential publication in *Interventions économiques/Papers in Political Economy*[78]*)*.
July 2014	'*The AmbITion Approach*: examining action research into organisational practice' (Rudman, 2014a), **peer reviewed invited paper presentation.** iFutures, 22nd July, University of Sheffield.[79] *(*Can be read in full in Appendix 17, below.)
March 2014	'**Co-opetition: facilitating peer learning for knowledge exchange via *The AmbITion Approach*', **invited paper presentation**. Beyond The Campus: Higher Education and the Creative Economy, 20th March, Glasgow University (Rudman, 2014b).[80]

7.3.8 Validity through external evaluation

The AmbITion Scotland 2012-14 programme was externally evaluated for the funders, Creative Scotland, in 2014. The independent report, by a consultancy firm, reported that aspects of *The AmbITion Approach* had been specifically valued by participants, such as the analysis and diagnostic elements:

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[78] See http://interventionseconomiques.revues.org/, last accessed 27.01.15.
[79] Paper published in online conference proceedings at:
https://conferencepapers.shef.ac.uk/index.php/iFutures/2014/paper/view/55, last accessed 11.08.14.
[80] http://www.creative-campus.org.uk/--fourth-workshop.html, last accessed 11.08.14.

by blending analysis, diagnosis and brokerage, individual needs have been connected to wider issues for the sector and they have been done so in a way that inspires and challenges organisations to progress (Fleming, 2014, p. 19).

Brokerage is also highlighted as being considered important by participant organisations in the report. The programme brokered relationships between organisations, and with external collaborators, such as Higher Education Institutions and technology companies. The building of wider networks and strengthening of collaborative relationships is indicative of open innovation practices emerging. Case studies were also mentioned as highly helpful to participants, validating the findings in section 6.4.7, above on Sharing Practice, indicating open innovation being practiced:

> Over 40% of respondents from our survey find AmbITion highly helpful in providing learning resources and case studies of the role of digital in organisational development (A further 30% find it moderately useful) (Fleming, 2014, p. 18).

The report discussed in some depth how a collaboration landscape had been supported to grow in Scotland, and concluded with a very positive statement:

> Overall, it has enabled the sector to more effectively integrate and mainstream digital as a means for excellence, innovation and growth; mobilising a new community of digitally hungry, collaborative creatives (Fleming, 2014, p. 23).

The independent evaluation externally validated *The AmbITion Approach*. The comments and qualitative data from an independent external survey triangulated with the data of this study, to strengthen the study's thesis that *The AmbITion Approach* is a suitable framework for the transformation of the creative sector in a digital age.

7.4 Conclusion

The analysis of the data and empirical work of the study combined to answer the specific research questions of this PhD investigation. The first section of the chapter discussed the conclusions forming answers to the research questions. In studying the concepts, methodologies, and tools of *The AmbITion Approach,* in a longitudinal study with creative businesses, this PhD's research has answered the research questions.

7.4.1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?

Organisations that experienced increases in their digital Capability, Capacity, Confidence, and Adaptability and Legibility all adapted, seeing first and second order change. Cumulatively, 84.22% of organisations experienced third or second order change. 47.36% of organisations (nine) that undertook *The AmbITion Approach* experienced second order change, seeing their businesses build the criteria to become adaptive to digital disruption. 15.78% of organisations (three) experienced first order change, as they were at the beginning of a period of implementing change, having spent their *AmbITion Approach* journey planning, rather than acting. An unexpected and significant result was that 36.86% of organisations (seven) that undertook *The AmbITion Approach,* experienced third order change, experiencing the transformation of their enterprise into a digital business. The significant majority of organisations that engaged with *The AmbITion Approach* adapted, but over a third experienced not just adaptation but transformation. It indicatively appears that comparatively, *The AmbITion Approach* is three-fold more likely to achieve transformation, and third order change in creative businesses, than development approaches supporting only digital innovations.

As a set of independent results, *The AmbITion Approach* has been validated as an approach to achieve transformation and third order change. Positive independent external evaluation also further validates the approach.

7.4.2. Is new practical and theoretical knowledge generated by the enterprises that engage with *The AmbITion Approach*?

Sixty six actions were achieved in total by sixteen organisations, and sixty nine research/learning outcomes were also achieved. This equates to an average figure of 4.15 actions per organisation, and an average figure of 4.31 research /learning outcomes being achieved per organisation that had undertaken *The AmbITion Approach.* Organisations that achieved over 9.11 action outputs and research outcomes were more likely to experience transformation. Organisations that achieved lower than 7.43 action outputs and research outcomes, and utilising modern management consultancy tools, and design and creative practices, experienced just adaptation.

Another conclusion to this research question discovered that it is not important "what" an organisation's actions or research outputs were, as these are similar across transformed and adapted. It is "where" in the business the actions and research outputs are achieved. If they are achieved across all areas of enterprise, then it transforms.

Organisations which utilised two or less of the modern management consultancy tools and creative and design practices achieved adaptation, and generated new practical and theoretical knowledge. However, organisations utilising over 3.56 tools and practices achieved transformation. The use of these modern management consultancy tools and creative and design practices is a contribution to practice, and business strategy and change management practitioners can access all the tools and methods together with case studies showing the impact of using them, online at http://getambition.com.

7.4.3. Could the concepts, methodologies and toolkits of *The AmbITion Approach* be a framework for business transformation in a digital age?

The 36.86% of organisations that achieved transformation embraced more of the concepts, tools, and methods of *The AmbITion Approach.* The 47.36% of

organisations using less concepts, tools, and methods still achieved digital adaptation. This proves the concepts, methodologies, and toolkits suitability as a framework for business transformation in a digital age. This is a new contribution to practice, and is discussed further below, in 8.2, below.

7.4.4 The validity and quality framework for action and research is proven

The second section of this chapter, above, discussed the validity of the results, and tested their validity through the application of a robust research and action framework for the analysis of the quality, validity and change achieved by action research based change programmes. This was created through earlier empirical work (see 4.1.9, above). It proved the framework as suitable to apply to a participatory action research study. The new framework is a robust research and action framework for the analysis of the quality, validity and change achieved by action research based change programmes is a contribution to knowledge, discussed below in 8.2, below.

7.4.5 External impact, validity, and generalisability of *The AmbITion Approach*

The chapter also discussed and proved the external impact, validity, and generalisability of *The AmbITion Approach*. Data sourced from Google Analytics enabled the analysis of engagement with and content of *The AmbITion Approach's* information system – the website content, online network, and social media channels. This proved its external impact and validity, as did independent external evaluations, and the links to the content from many other external websites. Rich media case studies published openly online shared organisations' learnings more widely, as proved by peaks in web traffic coinciding with the publication of case studies. Dwell times, week-day peaks, and return visitor statistics to the content proved that it was most likely viewed by sector professionals.

Validity was also proven through the presentation of the methodology and analysis of this research, and discussion of *The AmbITion Approach* as a framework for the transformation of the creative industries in a digital age, in the peer-reviewed environment of the academy.

The generalisability of *The AmbITion Approach*'s content and the rich media content about it that was proved through the Google Analytics statistics, showed after a year of the AmbITion Scotland programme's closure (meaning no marketing or promotion of the content and network) http://getambition.com was still receiving a wide and general interest in the content. *The AmbITion Approach* has also been reported in press articles in the UK and Australia.

Transferability was proved through Google Analytics that showed the geolocation of visitors to the online content showing international interest in *The AmbITion Approach*, as well as proved by the scoping that took place over 2013 and 2014 for *The AmbITion Approach* to be part of live and online programmes in other nations. Invited keynote addresses also indicated the international transferability, generalisability, impact, and validity (see Appendix 16 below, for the international press, media, and social media interest in the keynote addresses).

Answering the research questions, and discussing the research's impact, generalisability and transferability has resulted in practical and theoretical contributions to knowledge, practice, and the practice of research, and these are discussed next in chapter 8.

8. Conclusions and further work

Chapter seven above discussed how the analysis of the data and empirical work of the study combined to answer the specific research questions of this PhD investigation. Chapter seven also discussed the validity, generalisability and transferability of the results, and the wider impact of the work. The purpose of this final chapter is to make conclusions on the study as a whole.

Section one assesses the degree to which the study met the aims of the research. It considers the strengths and weaknesses of the research design, and suggests how alternative strategies may have enhanced the research.

Section two concludes what new contributions to knowledge, to practice, and to the practice of research the study has made. Section three discusses the implications of these contributions and points to further work in the fields of:

- research and development management (open innovation);
- information systems (participatory action research approaches, and IS for managing change and open innovation);
- change management (and business strategy and management); and
- creative and cultural industries studies.

Section four suggests other areas for further work, research, and development that resulted from the conclusions of the study, and section five offers chapter conclusions.

8.1 Conclusions on meeting the research aims

8.1.1 Did the research meet its original aims?

As chapter 7 has discussed in detail, the overarching aims of the research were achieved through the answering of the research questions. This study analysed data from nineteen organisations that used the concepts, methodologies, and toolkits of *The AmbITion Approach*, and although the sample size was not significant, the depth and amount of data collected was. Analysis of the data through thematic grounded analysis showed common themes and practices that emerged. The methods of the approach have also been tested and validated. *The AmbITion Approach* has been validated through this work as a new framework for business transformation for the creative industries, fit for the current landscape of continuous digital disruption. The validity and quality of the research has been tested, through the application of a robust research and action framework for the analysis of the quality, validity and change achieved by action research based change programmes, to the research of this study (see 7.2, above). This provides the fields of management consultancy (practitioners) and business transformation strategy (academics) with a new validated framework for business transformation, which has been tested in the field, in contexts continually disrupted by digital technologies. The research has been externally validated through evidence of wider impact, transferability, and generalisability (see 7.3, above).

Discovering cheaper mechanisms for delivering organisational and digital development to any enterprise was a minor aim. This was tested through the development of the online information system at getambition.com, which supported the delivery and impact *The AmbITion Approach*. This was a cheaper mechanism of providing the tools, concepts and methods for a change and transformation journey, than the cost of running an analogue programme nationwide. International interest in *The AmbITion Approach* (see 7.3.6, above) has been attracted to the framework because it could be offered in an online only environment, to support any creative organisation anywhere, regardless of location, more cheaply. Many sectors, including the creative sector, are now

looking for cheaper mechanisms for delivering organisational and digital development for mainstream, traditional businesses (see 1.1.3, above).

The original research aim was to investigate the development of a novel approach to organisational change appropriate to the digital age, in the context of the creative sector in Scotland. This was to ascertain whether *The AmbITion Approach* - a set of concepts, methods, tools and processes to generate theoretical learning and practical knowing - could be proposed as a new framework for business change and transformation. New validated frameworks which have been tested in the field are currently being sought, by both practitioners and academics for the current landscape of continuous digital disruption (see 1.1.4, above).

In addition to the contributions to practice, the work has made a number of theoretical contributions. One key contribution of *The AmbITion Approach* framework and toolkit is that it offers an alternative to SSM's conceptual models that have been criticised (Moores and Gregory, 2000), (Ledington and Donaldson, 1997), (Patching, 1990, and (Mingers and Taylor). *The AmbITion Approach's* tools, constructs and concepts are more accessible, practical, and understandable to enterprises. Creative and design tools such as creating rich media stories and user journey maps, and business model canvasses were enjoyable for creative sector stakeholders to use as tools in a framework for digital transformation, and provided them with expressive mechanisms – to have gathered 30,000 words of descriptive text and sixteen rich media stories over two years shows they had a good cultural fit. To what extent this generalises to other (non-creative) sectors is a point of further work (see 8.4.3, below).

The AmbITion Approach's information system of online toolkits, open and password-protected webpages, and online networks and forums for participants acted as research tools, and was a great strength of the research design. The information system provided a method for disseminating *The AmbITion Approach*, its resources and other learning materials. Practical resources are still available online at getambition.com. The use of an online information system of a website and social network is a theoretical contribution of *The AmbITion Approach.* The IS brought a new dimension to PAR, and expanded the potential that PAR has to make wider impact than just in the individual participant

organisations. The shared online network facilitated shared practice more widely, and encouraged participating organisations to develop open innovation practices, such as sharing what they had learned and developing connections. As the Google Analytics in 7.3.4, above demonstrate, this is still ongoing, with the still engaged organisations continuing to develop, act, and reflect and their digital developments. The information system itself became the process for guiding organisations and their co-researchers/facilitators through *AmbITion Approach* change journeys in addition to providing an academic enquiry mechanism of research instruments for longitudinal data collection and extraction. The tools in the IS were built to guide and administer organisations and their PAR co-researcher/facilitator through *The AmbITion Approach,* and enabled different types and scale of organisations, working with different co-researchers and facilitators to undertake the same change process and produce formal documentation in the same format. *The AmbITion Approach* is hosted in the cloud, and is available in any nation. They also meant that co-researcher/facilitators could engage with organisations and progress work even when they were not necessarily able to meet face to face. This brings a new "virtual" dimension to PAR, and testing whether PAR is successful in online-only environments is another piece of further work (see 8.4.2, below). Where Checkland blended SSM with action research (Checkland and Scholes, 1990), this work has blended *The AmbITion Approach* with PAR to something we might describe as "participatory transformation".

Another theoretical contribution is being able to assess the extent of change achieved in organisations, which was realised through the application of Coghlan and Rashford's definitions. The grounded thematic analysis enhanced these definitions with richer terms, and a more nuanced understanding of the notion of transformation.

8.1.2 Strengths of the research design

Action research oriented research design demands that research takes place concurrently, whilst action is ongoing, with research and actions undertaken by

the participants from the organisation. The research is *in* action, rather than *about* action. (Shani and Pasmore, 1985, p. 439). Participatory action research has been extensively discussed as an appropriate framework to apply in the field (see 4.1 and 4.2, above). Participatory action research was a suitable addition to the framework of *The AmbITion Approach* (and therefore the research design), because it recognised the researcher (and the research tools) as a part of the enquiry and development, as well as the actively engaged organisation. Both (staff and facilitator/consultant/"co-researcher) acted to shape the research and action project - in this case, the digital development journey of creative organisations (Elden and Chisholm, 1993). Another strength in the research design was that the study assessed levels of change across a number of organisations, without a single researcher needing to facilitate all the cases. The responsibility for theorising and solving issues did not rest solely with the researcher. This was because of another general characteristic of action research: it is collaborative - participants of the system studied were actively engaged in the cyclical process (Lewin, 1946). The information system enabled the aggregation of data for prompting more action, and for research.

The major opportunity was that the PAR aspects of T*he AmbITion Approach* created bespoke, contextualised solutions, through collective and collaborative fact-finding, analysis, and decision making within the participant organisations (Coghlan and Brannick, 2010). The PAR aspects of the approach, included in the research design, explicitly emphasised an egalitarian relationship between the researcher and members of an organisation. They aimed together to solve a problem or transform a situation or structure and generate new knowledge through action and research (Reason and Bradbury, 2008, p. 1). It is a participative way for organisations to learn and transform (Greenwood et al., 1993, p. 175). PAR is a combination of flexible means and grounded theory - to combine people-based and evidence-based enquiry within challenging situations, that keep evolving (the situation of the creative sector because of the impact of disruptive, digital technologies). The participating organisations working with their facilitators formed teams to undertake the change journeys, and the research

instruments in the information system gathered each organisation's data for the study.

The non-conventional action research method of participatory action research (PAR) has been strengthened as an approach for business transformation through the tools embedded in the information system of *The AmbITion Approach*. The digital infrastructure built to guide and administer organisations and their PAR co-researcher/facilitator through *The AmbITion Approach* allowed a congruent dataset to be built for analysis. Different types and scale of organisations, working with different co-researchers and facilitators undertook the same change process and produced formal documentation in the same format. The online tools and methodologies in *The AmbITion Approach's* information system provided the research tools for the study's data collection; the structure of the change journey for the organisations was provided through toolkits online; and the shared online network facilitated sharing practice. This has in turn supported open innovation practices to emerge in the creative sector through a structured online network. For example, the analysis of the evidence gathered about organisations' behaviour around sharing practice of their own and others' learnings, showed a preference for open innovation being practised in an online structured network. The approach's information system was utilised for this by a significant majority (three quarters) of the group of participant organisations. *The AmbITion Approach's* information system of online toolkits, open and password-protected webpages, and online networks and forums for participants acted as research tools, and was a great strength of the research design. The information system became:

- the process for guiding organisations and their co-researchers/facilitators through *AmbITion Approach* change journeys;

- an academic enquiry mechanism of research instruments for longitudinal data collection and extraction;

- a method for disseminating *The AmbITion Approach*, its resources and other learning materials, and for sharing practice; and

- a mechanism for encouraging participating organisations to develop open innovation practices, such as sharing learnings, and developing connections.

The information system ensured wider engagement with the framework, process, and all its tools, as has been discussed in 7.3 above. Using rich media to present action and research outcomes and findings was a successful mechanism for presenting the results of research to the public, and business-to-business, as longer-term website visits that prove ongoing engagement show.

A further strength was the addition of Coghlan and Rashford's change categories which were added to the framework to provide a set of definitions (first, second, and third order change) that could be applied to describe the extent of change that occurred (Coghlan and Rashford, 2006) – see 4.1.9, above.

Computer Assisted Qualitative Data Analysis Software (CAQDAS) for data analysis was an essential tool to enable the research design, and eased the job of the qualitative analysis of a large volume of textual data. Including a thematic analysis in the grounded theory analysis stage of the research design was not an original part, but added later, when inductive analysis produced skewed results (see 5.2, above). The thematic analysis generated a fully structured coding scheme, which was deductively applied to data sets.

Another strength of the research design was to include an independent external evaluation as part of the validation of the research (see 7.3.8, above). It provided the opportunity to cross-check the validity of this enquiry. Independent observations provided a more traditional social science approach to establishing validity. Peer reviewed activity to discuss the work has also taken place in the environment of the academy as discussed in 7.3.7, above, providing academic validation.

8.1.3 Limitations of the research design

As well as strengths, the research design had some limitations. With the inclusion of PAR in *The AmbITion Approach* framework, a new approach for change and transformation was presented. It was an alternative to mainstream positivist, conventional, or exact science. Action-oriented research is radically different from a top-down, expert model, and so it could be argued that this creates subjective rather than objective knowledge, which cannot be more widely applied, or generalised. This is a common criticism of research of this nature, and not peculiar to this study. The research design took a non-positivist, qualitative, interpretive approach. Seeking to reinstate the interdependence of theory/substance and technique/process back into science is called for by Gorz, who argued for the self-limitation of science, for science to reflect upon itself, and refuse to give itself immunity from self-examination and experimentation (Gorz, 2008).

The culture of dissertations traditionally discourages collaborative work that results in local knowledge. However, advances by anthropologists such as Cochran-Smith and Lytle (1993) built the case for the validity of generating local knowledge that addressed the needs of people in specific settings - the community of practice - but that could also be utilised by those beyond the setting (Cochran-Smith and Lytle, 1993). Participatory action research can create products, instruments, and toolkits that can be used in, or transferred to, other settings. The rise of applied doctoral degrees such as doctorate in education (Ed.D.) and doctorate of business administration (DBA) has seen growth in the academy of action research methodologies, or frameworks that achieve professionally applied results (Anderson and Herr, 1999). This action and research PhD dissertation has tested and validated *The AmbITion Approach* toolkit in the same way.

Another limitation of the research design was that in terms of research output, it has not produced deep results and a significant contribution for a single discipline, but rather the research has made a number of smaller contributions across a number of disciplines. The study was interdisciplinary, applying theories, approaches, and methods from different disciplines. The results of the research

are multidisciplinarity, with impacts across the humanities and sciences. Multidisciplinarity is becoming more accepted and understood in the academy. For example, current work to understand technology management (TM) as a discipline seems to be concluding that it is multidisciplinary. Journal citation network analysis has looked at the knowledge flows and citation relationships between a number of speciality and relevant journals considered important to technology management. It found a high degree of interaction between six disciplines, including business and management, planning and development, and information science (Lee, 2015).

8.1.4 Alternative strategies for enhancing the research design

The research design had strengths and weaknesses. A few strategies could have improved it. For example, better sharing of practice and learnings between the facilitator/consultants who worked with the participant organisations would have improved the experience. Whilst the research design gathered reflective feedback from the perspective of the organisations, it did not from the perspective of the facilitators/consultants. This feedback would have been interesting to collect as it might have given insight into which of the aspects of *The AmbITion Approach* change journeys or tools the organisations struggled.

The dataset of the reflectionnaires could have been improved, by ensuring that they could not be anonymous. A mistake in the online survey structure meant that the question seeking email addresses was optional, so responses could not be aligned to organisations. Despite the fact that over half the respondents offered their email addresses, the whole dataset had to be treated as anonymous. Being able to match reflectionnaires with organisations would have been useful for case-by-case review of change achieved.

8.2 New contributions to knowledge and practice

The introduction clarified a number of calls from the field for new contributions to practice. The research has resulted in the following new contributions to knowledge and practice.

8.2.1 New contributions to practice

As they enable third (transformation) and second (adaptation) order change in a significant majority of participant organisations, the concepts, methodologies, and toolkits of *The AmbITion Approach* have been validated through this study as a new framework for business transformation. The concept of a change journey, as encapsulated in *The AmbITion Approach*, with its methodology of participatory action research, and toolkits of modern management consultancy, creative, and design practices, set within a single information system, could be established as a framework for enterprises in other sectors seeking adaptation and transformation in the face of digital disruption. The toolkits and methods remain well-visited online, as 7.3.4, above discussed.

The work contributes to practice the concepts, methods, tools, and processes of *The AmbITion Approach*, which have been tested in the field and validated as a new framework for business transformation of the creative industries in a digital age, as section 7.1 concluded, above. It is a published[81], codified, and packaged professional tool for use with/by any creative enterprise. Ongoing live programmes for the creative industries already signpost to it, as discussed in 7.3.5, above; there has been international interest in the approach, as discussed in 7.3.6, above; and there is continued general interest in it as discussed in 7.3.4, above.

8.2.2 New contributions to knowledge

The work contributes to knowledge a theoretical and conceptual framework with a specific set of constructs and criteria that define first, second, and third order

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[81] Available online at http://getambition.com, last accessed 8.04.15.

change in creative enterprises looking to digitally develop, and methods, concepts and tools that support the achievement of the change. This is discussed in detail in 7.1.2 above and 7.1.4, above. Figure 8.2.2.1 below (and in larger scale for readability in Appendix 18, below) offers a thematic and conceptual framework as a schematic showing the concepts and constructs:

Figure 8.2.2.1: The thematic and conceptual framework of *The AmbITion Approach* as a schematic

Organisations looking to digitally develop…

1. Apply *The AmbITion Approach's*

concepts of PAR (team+researcher)   methods &   toolkits

2. Look to **increase** digital - **Adaptability and Legibility** **Capability** **Capacity** Clarity of strategy, vision, mission, purpose **Confidence** Legitimacy Sharing Practice Strengthening Relationships Transformation	3. Apply the approach to # *SOME* areas of business	3. Apply the approach to # *ALL* areas of business
	4. Achieve # action and research outputs <7.43	4. Achieve # action and research outputs >9.11
	5. Use # design & creative practices & modern management consultancy tools <2	5. Use # design & creative practices & modern management consultancy tools >3.56
= Change (first order)	**= Adaptation** (second order)	**= Transformation** (third order)

It also contributes to knowledge a robust research and action framework for the analysis of the quality, validity and change achieved by action research based development programmes (see 4.1.9 and 7.2 above) shown as figure 8.2.1.2 below (and in larger scale for readability in Appendix 18, below):

Figure 8.2.1.2: A robust research and action framework for the analysis of the quality, validity, and change achieved by action research based development programmes

Anderson & Herr's Goals of Action Research and Validity Criteria (2005)		Coghlan & Rashford's	AmbITion Approach research tools	Research question
Goals of Action Research	**Quality/Validity criteria**	**Type of change achieved (2006)**	**Data gathered/evidence**	
Generation of new knowledge	Dialogic and process validity	Third order	Are rich media case studies created? How much are case studies viewed online and shared in live environments?	2&3. What new practical and theoretical knowledge is generated? Could the concepts, methodologies and toolkits be a framework for business transformation in a digital age?
Achievement of action-oriented outcomes	Outcome validity	First order	Reflectionnaire results, rich media case study review	1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?
The education of both researcher and participants	Catalytic validity	Second order	How many *AmbITion Approach* organisations go on to apply for other funds?	1&2. What new practical and theoretical knowledge is generated & To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?
Results relevant to local setting	Democratic validity	First order	Business and Implementation Plans, rich media case study	1. To what extent do enterprises that engage with *The AmbITion Approach* adapt to deal with disruptive digital technologies?
A sound and appropriate research methodology	Process validity	Third order	Triangulation of different data, showing the impact from a number of different cases and a number of different data sets	3. Could the concepts, methodologies and toolkits be a framework for business transformation in a digital age?

8.2.3 New contributions to the practice of research

The thesis additionally contributes to the practice of research, adding to our understanding of the value of participatory action research (PAR), design thinking approaches, and creative practices as methods for change. The tools of PAR were also discovered to be particularly effective as qualitative and quantitative research methods when used in online, networked information systems (as discussed in 7.1.3, and 8.1.2, above). Academics have called for more "work and creativity" to strengthen the theoretical foundations of participatory action research, and its potential to be an informed alternative to positive science (Chevalier and Buckles, 2013, p. 5). Using digital information systems to administer PAR projects is a firm recommendation emerging from the study. It has resulted in an information

system of resources that other change programmes could utilise, which includes a toolkit of resources, as well as research instruments to enable researchers or programme managers to measure the extent of change. It has provided some substantive evidence for Chevalier's call. Participatory action research has been an appropriate framework to apply in the field, as it has allowed for the intervention of the co-researcher or facilitator, in order to achieve organisational development and change. Participatory action research is a suitable methodology for creating transformation in continuously changing organisations. Businesses transformed because the techniques and tools accommodated the dynamic changes in the organisations, as well as changes in the external environment. This is a contribution to the practice of research.

The research has met its aims and made a contribution. With further work, the contributions could be developed into a theory for the transformation of businesses in a digital age, becoming a theory of business and management.

8.3 Impact in other fields of the contributions to knowledge and practice of this work

8.3.1 Overview of other fields into which this study contributes new knowledge and practice

This dissertation, and the published and proposed papers stemming from its findings, has produced new contributions into knowledge that have implications for researchers and practitioners in the disciplines of: management consultancy and business transformation strategy; research and development management (open innovation); information systems; and creative and cultural studies. The literature reviewed in chapter 2 clarified a number of areas, spanning different disciplines, where need was identified for new knowledge and practice:

- Management Consultancy (practitioners) and business transformation strategy (academics) have called for new validated frameworks, which

have been tested in the field, for business transformation in landscapes of continuing disruptive technologies (see 1.1.4, above).

- Open innovation - research has been called for by research and development management academics, on how networks enhance open innovation, and whether the network can be used as a unit of analysis, and on how SMEs can implement open innovation practices (see 2.1.6, above).

- Information Systems - academics in the field of IS have repeatedly called for more qualitative, interpretive, and action research based approaches to analysing information systems in the field (see 2.3.4, above).

- Creative and cultural studies and creative industries policy - section 2.3.3 above, highlighted the problems of focussing development funding for the creative sector purely on digital innovation, which has created a 'cultural digrati'. Therefore, there is an implicit call to suggest alternative methods, mechanisms, and policy to support all businesses in the sector adapt to digital disruption.

This section discusses what from this enquiry is new knowledge and practice for these fields.

8.3.2 New contributions into practice for management consultancy, and of knowledge into the field of business strategy and management

A 2014 Global CEO Survey by PwC reported that more than 80% of CEOs identified "technological advances" (such as the digital economy, social media, mobile devices and big data) as the number one trend that drove them to think about transforming their business.[82] Similarly, InformationWeek surveyed 326 respondents at organisations with fewer than 1,000 employees, and 184 respondents at organisations with 1,000 or more employees for the Digital Business Survey of 2014. Both small and large companies identified competing demands as the top challenge to managing and implementing a digital strategy. Lack of funds was the main reason for not developing a digital strategy amongst

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[82] See PwC's 17th Annual Global CEO Survey, 2014. See http://goo.gl/Lz0dnm , last accessed 26.01.15.

smaller companies, whilst the majority of large companies cited a lack of time.[83] Meanwhile, leading business analysts in the field, such as Forrester Research, warned businesses to develop digital strategies:

> Digital disruption is not only a possibility for your company's future but the only possibility (McQuivey, 2014, p. 149).

Forrester Research's warning came on the back of a 2012 survey of 285 global executives, where only 32% agreed that: "Our company has policies and business practices that will enable us to adapt to the challenges that digital will bring our company". Only 38% of respondents agreed that the company they worked for had people whose skills would help the company to adapt (McQuivey, 2014, p. 108). This is worrying, as the ubiquity of smartphones, real-time big data analysis for behavioural insights, cloud computing, wearable computing, augmented reality and artificial intelligence are the technologies already disrupting the second decade of the 21st century (Economist Intelligence Unit, 2012, p. 9). Together with the calls from practitioners and academics for new suitable frameworks to deal with faster changing environments (as already noted in 1.1.4, above), this evidence from enterprise shows there is a need and demand for new frameworks to help businesses cheaply develop strategy, to deal with digital disruption.

For the needs of practitioners and businesses seeking support to digitally transform, this study contributes the concepts, methods and toolkits of *The AmbITion Approach*. It is an interdisciplinary framework of participatory action research methods, blended with design and creative practices and modern management consultancy tools. It has been validated in the field and though academic research as creating transformation for businesses dealing with digital disruption. The approach and its toolkit and resources are available for free via the

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[83] See http://reports.informationweek.com/abstract/83/11877/IT-Business-Strategy/Research:-2014-Digital-Business-Survey.html , last accessed 28.01.15.

getambition.com website for anyone wanting to apply it to their organisation in practice.

The work contributes to knowledge in the field of business strategy and management the commentary of this thesis about how to create change, adaptation, and transformation in businesses, and about how to set up research tools to gather data to measure it. The thematic codes and change definitions are offered as constructs and criteria, as presented in figure 8.2.2.1, above. The work also contributes to the field of business strategy and management a robust research and action framework for the analysis of the quality, validity and change achieved by action research based development programmes, as presented in figure 8.2.2.2 above.

8.3.3 Contributions to the practice of open innovation

For sectors such as the traditional creative industries that are struggling to keep up with the continuous waves of digital disruption, open innovation practices offer a mechanism to externally source capability for development. Capability might be extended by firms establishing partnerships with research institutes, connecting with users via crowdsourcing, or forming strategic alliances with other enterprises in different industries. The great ideas, resources and assets necessary for creating new products and markets can be done as smart work through a network of strategic partners with strong relationships (Marjanovic et al., 2012).

The analysis of the evidence gathered in this empirical study about organisations' behaviour around sharing their own and others' practices and learnings, shows open innovation practices being engaged in by most (three quarters) of the group of participant organisations. This work advances the field, by demonstrating how open innovation was stimulated in enterprises scattered across different geographical locations. For remote and rural organisations, open innovation practices were enabled via online networks. The networks were used by businesses, and provide some insight into Cowan, Jonard and Ozman's call for research to be undertaken to find out how structured networks generate higher

knowledge growth. Cowan *et al* suggested that structured networks work in industries in which tacit knowledge is relevant, and technological opportunities are high (Cowan et al., 2004). The getambition.com ex:change[84], a marketplace of ninety companies and their ideas, and the network (two forums of over 80 posts[85], as well as 1295 profiles of individual professionals in the sector[86]) were highly structured, and password protected. This built up trust - between the actors and in the information system. The trust was evidenced by users that, for example: posted questions asking for advice on technologies; sought recommendations for web developers in a certain location; or posted pieces of digital development work to be undertaken. Tacit knowledge about the creative industries sector's business and operational models, customers and stakeholders was shared, as proved by language used in forums, which was often informal, and phrases used which implied a level of knowledge of the reader, as the screenshot of this Digital Doctor forum post example, figure 8.3.3.1 below, shows:

Figure 8.3.3.1: Screenshot of post to Digital Doctor forum (source:
http://getambition.com/discuss)

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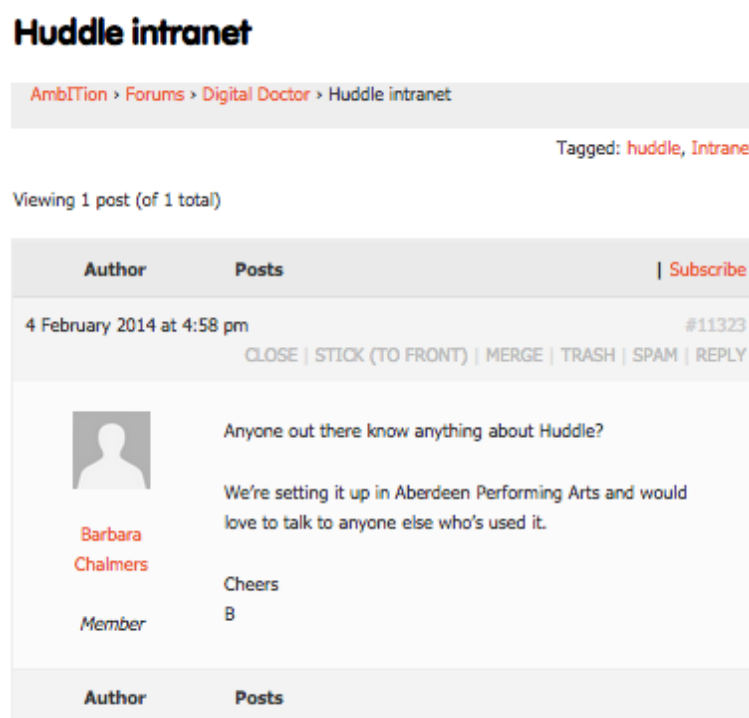
[84] See http://www.getambition.com/network/, last accessed 8.04.15.
[85] See http://www.getambition.com/discuss/ last accessed 8.04.15.
[86] See http://www.getambition.com/members/ last accessed 8.04.15.

Here, Barbara Chalmers ("B") asks the network in an informal tone about Huddle, assuming that most network members will know what Aberdeen Performing Arts is and does, and so could make recommendations about whether or not the organisation should invest in the collaborative content development platform, Huddle.

The external evaluation of the AmbITion Scotland programme noted the importance the online network mechanisms had on building a "collaboration landscape":

> The 'collaboration landscape' for the cultural sector in Scotland is more developed and embedded as a consequence of AmbITion. For example, over 50% of survey respondents agree "AmbITion supports cultural organisations in Scotland to develop a more progressive relationship with technology and technologists". At its heart AmbITion is bringing together different organisations, experts and beneficiaries – connecting peers to peers and introducing new, otherwise unlikely collaborations. Online fora and events are supporting sharing of ideas and intelligence (Fleming, 2014, p. 20).

The results of analysing the networking activity on the IS showed that it encouraged the successful adoption of Open Innovation (OI) practices within a small cohort of organisations participating in the study. The publication online, via the information system's website, of the learning and knowledge developed by the organisations has had an impact on the wider sector. This has furthered the impact of the original network of collaborative organisations. Through their practising of open innovation via online sharing of case studies (see 6.4.7, above), their learnings and knowledge have been connected internationally. Further comments about brokerage and case study sharing from the external evaluation and described in 7.3.8, above, validate this study's evidence of how open innovation practices can be adopted by sectors. The information system (IS) of *The AmbITion Approach* is proved as a structured network appropriate for managing successful open innovation practices, through its online tools that enterprises used to collaborate between peers, regardless of geography or remoteness.

The AmbITion Approach framework promotes the sharing, via an information system of online networks, of practical learning and theoretical knowledge about digital developments and innovations achieved between geographically dispersed, and often remotely located, creative industries companies in Scotland. These are open innovation practices at large, in the field. The network (the ecosystem of the participants using the IS, and the wider sector using its website) has been considered as a unit of analysis by this study (see 7.3.4, above), as called for by Mitra (2013). It has been utilised in practice in the creative industries in Scotland, and can therefore be proposed, as a new practical approach for measuring and managing open innovation, as called for by West *et al.* (2014). This approach needs more academic research to validate it theoretically. Further work could be undertaken by researchers interested in the theory of open innovation working in the field of research and development management.

8.3.4 Contributions to knowledge and practice for the field of information systems (IS)

Section 2.3.4, above, reported that action research approaches were rare in the field of information systems, as was research undertaken in the field (Avison and Fitzgerald, 2012).

The information system (IS) of *The AmbITion Approach* prompted the change journey itself. The getambition.com website supported the approach to be undertaken in the field, providing resources to help organisations undertake a journey of change for digital development. The IS of *The AmbITion Approach* was also an information communications technology based management system for collecting data, which facilitated: measuring of the extent of impact; measuring the extent of business transformation; and measuring the extent of open innovation practices. Mixed methods analysis of the impact of, and interactions on, the IS and its public website, showed impact, business transformation, and open innovation practices manifesting in action and practice, in a measurable way, as discussed in 6.4.9 and 8.3.3, above. Open innovation can be supported

through information systems, as proved by this study. The information system of this study prompted and guided participatory action research in organisations, and also reported on action and research achieved. Anyone can use the information system of *The AmbITion Approach*, with their own organisation in practice, at getambition.com.

Into practice, the work of this study offers proof that IS are effective mechanisms for running digital development programmes for enterprises spread over large geographic areas. This work has already been of interest to arms-length government bodies such as The Australia Council, which scoped *The AmbITion Approach* as a potential method to support the creative industries in Australia (as discussed in 7.3.6, above).

Into knowledge, this study makes the contribution of validating a participatory action research approach for change, which was supported by IS and researched through tools embedded in the IS. A journal article in the field of information systems will be submitted for peer review and potential publication.

8.3.5 Contributions to knowledge and practice for the field of creative and cultural studies and practice

This study proved that traditional creative industries can achieve transformation and third order change, with the right tools and support. Within the creative industries currently though, support is focused on developing new digital innovations (see 2.3.3, above). This creates a vicious cycle of funding the 'cultural digirati', rather than the incumbent, traditional businesses that are struggling to adapt to digital disruption. Whilst there is no explicit call to suggest alternative methods, mechanisms, nor policies to support any business in the sector adapt to digital disruption, the work of this study has validated *The AmbITion Approach* as an alternative.

In the US and UK, the "cultural value debate" is currently a hot one - the discussion of 'value' has been inextricably linked to the challenge of 'making the case' for the arts and for public cultural funding. Prevailing evidence-based policy

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making for the creative sector is still taking the direction of economic instrumentalism (Belfiore, 2015). The findings of the thesis justify provocations on current UK government creative economy policies. The UK government believes that including the digital lions, the IT, telecommunications, and software companies in the creative economy sector will put government at the top of the innovation and economic impact curve. However, governments must improve digital/economic development policy to better support the digital lambs, incumbent, traditional creative enterprises providing cultural value, if they are to survive in the digital fold. Provocation is needed, as current support is for digital innovation, which mainly benefits the 'cultural digirati'. The traditional, incumbent, creative sector is not disappearing, as the standard model of creative destruction might assume (see 2.1.4 and 2.1.5, above). Creative destruction is not as relevant in the creative industries, as the sector's traditional products (stories, music, visual work, performance) can remain relevant for centuries in analogue form. It is not necessarily core product that requires innovation. New digital products innovated for digital markets gives creative enterprises new business models and income streams, and this is essential to encourage, alongside providing appropriate support to build resilience to digital disruption. Incumbent organisations need help to establish business models which guarantee that their message (the cultural and creative content) does not get eaten by the medium (the ever fattening digital publishing platforms, telecommunications companies providing broadband, and social media enterprises re-sharing through their networks). This can be achieved: *The AmbITion Approach*'s framework is proven to work with the traditional creative sector. For them, it achieves business transformation (see 7.1.2, above), and encourages open innovation practices in incumbent organisations (see 8.3.3, above).

This work makes new contributions to practice, as any creative sector organisation can access the business transformation framework, toolkits, and support mechanisms of *The AmbITion Approach*, online at getambition.com. Validated through this study as being particularly appropriate for helping the traditional creative sector, the approach has also been externally validated for this focus by the external evaluators:

> AmbITion has played a vital role in introducing the possibilities of digital technology without over-selling it as the 'major solution'. In other words, digital is positioned as a proxy for other business and organisational development processes – a means to a more sustainable, interactive and high quality end. This is a key message for the wider arts and cultural sector (Fleming, 2014, p. 18)

The study has made a new contribution of knowledge into the field of creative industries and cultural studies, and a peer-reviewed paper has been accepted to the 10th International Forum on Knowledge Asset Dynamics, with potential additional publication in *Interventions économiques/Papers in Political Economy*[87]. It will discuss the findings and contributions of this study. *(Other potential articles are planned for submission to the sector press to provoke against current government policy, and will generate debate, but will likely have little impact).*

8.4 Further work

Section 8.2.3, above, highlighted the further work required to validate theoretically the notion that open innovation is supported across large geographical areas through information systems. There are some outstanding questions which emerged from the study that are outside the scope of this thesis, but that further work, research, and development could address. These are now discussed.

8.4.1 Further work on scale and location of organisation

It has been noted in the analysis in 6.3, above, and conclusions from the studies in 7.1, above, that the results indicate remote community arts organisations, of micro-enterprise scale, as being the most likely type of enterprise to experience

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[87] See http://interventionseconomiques.revues.org/, last accessed 27.01.15.

transformation. Due to a small sample size though, this can be taken as no more than an indication. Further work could concentrate on specifically studying creative sector organisations that operate on a micro and SME scale as enterprises in remote areas, to see whether any of these aspects particularly influence transformation. This call is echoed by Highlands and Islands Enterprise's Creative Industries Strategy 2014-19. New metrics are called for to more effectively target and evaluate support, as is increased research on the business base of the creative sector in the region (Highland and Islands Enterprise, 2014, p. 7).

Given that *The AmbITion Approach* has successfully moved countries in the same sector (it moved from England to Scotland in 2009), further work could identify whether the approach would work internationally. As 7.3.6, above, has already discussed, effort has been made to develop programmes (online only in Iberian America and New Zealand, and online/offline in Spain and Australia). There is evident need, as the creative sector landscape is similar across the globe. This is because UK creative industries policy has been seen as world-leading, and has been copied enthusiastically (Hesmondhalgh, 2007).

8.4.2 Further work on online-only delivery

Anecdotally, it is known that organisations have undertaken self-led *AmbITion Approach* journeys. It would be useful to test what outcomes are achieved by a set of organisations undertaking the approach using solely the online toolkit, and using an in-house team member to lead the process of participatory action research (rather than an external facilitator/consultant). Is it estimated that the online-only approach would be cheaper. This is because the tools and mechanisms have already been developed, and are available online currently for free. For example, estimates for developing information systems to support virtual AmbITion programmes in other English speaking nations, like Australia, came in at c. £4,500 per annum total, for any number of organisations. For comparison, it cost AmbITion Scotland between £2,500 - £5,000, to provide just one organisation with in-person support. It is not known whether or not there would be a need for more online content to be created to guide and encourage organisations to continue change journeys, and not "drop out". Dropping out is a

potential issue. For example, it is well documented in academic literature, and the popular press, that the completion rate of massive open online courses (MOOCs) is just 13%. The main reason for not completing is a lack of support. Although not directly comparable, the job of the tutor in a MOOC is similar to that of the facilitator/consultant of *The AmbITion Approach*: to provide support for feedback and continuation. Interestingly, MOOC participants opting to pay for additional tutoring are most likely to complete the course (Meinert, 2014). Whether a virtual facilitator/consultant was needed by online participant organisations in order to help them progress change journeys, would be worth investigating.

If other nations took up the approach, then further related work could develop research examining the importance of the online information system for encouraging and supporting open innovation practices in networks of international enterprises that come together only online.

8.4.3 Further work in different contexts and sectors

Further work could also test whether *The AmbITion Approach* works in different sectors and contexts. Multidisciplinary research projects were called for in the literature by Malerba, see 2.1.3, above (Malerba, 2006). *The AmbITion Approach* is now being tested, via an empirical project in the field of informal science learning, to see whether the approach works in an academic context to encourage multidisciplinary investigations, work, outputs, and impacts. In 2015, the ESRC funded a new research project at Durham University on which the author is co-investigator working with Newcastle's science centre (*Centre for Life)*. The project unites science communicators, designers, and academics from different disciplines. The aim of the research is to see whether a multi-disciplinary team can improve informal science learning activities through applying interdisciplinary methods to the design and evaluation of new exhibits at *Centre for Life*. The enquiry's methodology includes some of the methods and tools of *The AmbITion Approach,* to enable a novel approach to this multidisciplinary project. These include from *The AmbITion Approach*:

- a blend of participatory action research approaches with creative and design practices applied to the iterative design and evaluation of the exhibits, undertaken by the staff team, professional practitioners, and academic researchers; and

- re-worked elements of the information system to enable the collaborative research work of a team (of designers, informal science learning practitioners, psychologists, anthropologists and the participatory action researcher). The IS will collect data from participants engaging with the exhibits, and from the exhibits directly, for the team to analyse in different ways according to their own discipline's epistemologies and ontologies.

For different sectors, the current information system online at getambition.com would need to be adapted. It has content focussed on the creative sector. The tourism sector is an adjacent sector, with which most of the existing content and approaches would resonate, but further work would be needed to identify how the content could be developed, adapted, and packaged to attract other different sectors.

8.5 Conclusion

8.5.1 Summary of strengths, limitations and alternative approaches to the research design

This chapter first discussed how the PhD study met the aims of the research. It summarised how the empirical work answered the research questions. The research design had particular strengths suiting it to an environment where the research is *in* action, rather than *about* action. Participatory action research was a suitable addition to the research design, because it recognised the researcher (and the research tools) as a part of the enquiry and development, as well as the actively engaged organisation. The study assessed levels of change across a number of organisations, without a single researcher needing to facilitate all the cases. The major opportunity of the PAR aspects of the research design created

bespoke, contextualised solutions, through collective and collaborative fact-finding, analysis, and decision making within the participant organisations. The non-conventional action research method of participatory action research (PAR) has been strengthened as an approach for business transformation through the tools embedded in the information system of *The AmbITion Approach*. The digital infrastructure built to guide and administer organisations and their PAR co-researcher/facilitator through *The AmbITion Approach* allowed a congruent dataset to be built for analysis.

The online tools and methodologies in *The AmbITion Approach's* information system provided the research tools for the study's data collection; the structure of the change journey for the organisations was provided through toolkits online; and the shared online network facilitated sharing practice. This is turn supported open innovation practices to emerge in the creative sector, through a structured online network. The information system ensured wider engagement with the framework, process, and all its tools. A further strength was the addition of Coghlan and Rashford's change categories that were added to the framework to provide a set of definitions (first, second, and third order change) which could be applied to describe the extent of change that occurred. Computer Assisted Qualitative Data Analysis Software (CAQDAS) for data analysis was an essential tool to enable the research design, and eased the job of the qualitative analysis of a large volume of textual data. The thematic analysis generated a fully structured coding scheme, which was deductively applied to data sets.

A limitation of the research design was that in terms of research output, it has not produced deep results and a significant contribution for a single discipline, but rather the research has made a number of smaller contributions across a number of disciplines. The research design took a non-positivist, qualitative, interpretive approach. Action-oriented research is radically different from a top-down, expert model, and so it could be argued that this creates subjective rather than objective knowledge, which cannot be more widely applied, or generalised. This is a common criticism of research of this nature, and not peculiar to this study.

Alternative strategies could have applied more mainstream positivist, conventional, or exact science approaches to the research. The research could have taken an alternative descriptive, explanatory approach, compiling historical or archival data from the organisations once change had taken place. Another alternative approach could have been to undertake a more positivistic scientific experiment with the participant organisations looking to digitally develop. However, these approaches would not have been suitable, as all participant organisations had different contexts and challenges and contexts, and it would have been difficult to control behavioural events across them.

8.5.2 Summary of new contributions to knowledge and practice

The work has made contributions to:

1. **practice** - the concepts, methods, tools, and processes of *The AmbITion Approach* have been tested in the field to support creative enterprises as they face ongoing digital disruption, and have been validated as a new framework for business transformation in the creative industries in a digital age (see 8.2.1 above). Additionally, information systems were proven as effective mechanisms for running digital development programmes for enterprises spread over large geographic areas.
   - This has implications for the practical field of management consultancy and academic discipline of business strategy and management (see 8.3.2 above).
   - It also has implications for practice in the creative sector, as any creative sector organisation can access the academically validated business transformation framework, toolkits, and support mechanisms of *The AmbITion Approach*, online at getambition.com.

2. **knowledge** - a theoretical and conceptual framework with a specific set of constructs and criteria that define first, second, and third order change in creative enterprises, visualised as a theoretical and a theoretical and

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conceptual framework (see 8.2.2.1 above), and a robust research and action framework for the analysis of the quality, validity and change achieved by action research based development programmes (see 8.2.2.2, above) were developed.

- o This has implications in the academic disciplines of creative and cultural studies and business strategy and management (see 8.3.2 and 8.3.5, above).

3. **the practice of research** - adding to our understanding of the value of PAR and design thinking approaches and creative practices as methods for change. The tools of PAR were discovered to be particularly effective as qualitative and quantitative research methods when used in online, networked information systems (see 8.1.2 and 8.2.3, above).

- o This has implications for practice in the field of open innovation, but further work would need to be undertaken by researchers interested in the theory of open innovation working in the field of research and development management to validate it theoretically.
- o This has implications for knowledge in the field of information systems (IS), with the contribution validating a participatory action research approach for change, which was both supported by IS and researched through tools embedded in the IS (see 8.3.4, above).

The research has met its aims and made contributions to practice, knowledge, and the practice of research.

8.5.3 Further work

Further work could concentrate on studying whether the scale and location affects the likelihood of digital transformation. Results indicated remote community arts organisations of micro-enterprise scale as being the most likely type of enterprise to experience transformation, but more work is needed whether any of these aspects particularly influence transformation. Further work could also identify whether the approach would work internationally.

It would be useful to test what outcomes could be achieved by a set of organisations undertaking *The AmbITion Approach* via online-only delivery. Online-only delivery is cheaper, and therefore attractive to nations looking to support their own creative industries sector digitally develop. If other nations took up the approach, then further related work could develop research examining the importance of the online information system for encouraging and supporting open innovation practices in networks of international enterprises.

Further work could also test whether *The AmbITion Approach* works in different sectors and contexts. For different sectors, it is likely that the information system would need to be adapted with new content and examples. Further work is already underway to see if the approach works in different contexts via an empirical project in the field of informal science learning. The investigation is exploring whether the approach works in an academic context to encourage multidisciplinary investigations, work, outputs, and impacts (see 8.4.3, above). Like this study, the context, process, and outcome of the research are all of equal importance to finding out more about how people learn about science informally. The new enquiry's methodology therefore includes some of the validated methods and tools of *The AmbITion Approach,* to enable a novel approach to a multidisciplinary project.

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Appendix 1: AmbITion Scotland 2012-14 AmbITion Approach awardees' summaries

Organisations undertaking the *AmbITion Approach* and summary of their business cases

AmbITion Scotland applicant '12-'14	Summary of business case for AmbITion Approach application
Scottish National Jazz Orchestra	To examine current methods, mechanisms and online presence to ensure they're robust, sustainable and effective in enhancing SNJO's reputation and to identify gaps in our multi channel communications that will engage with audiences worldwide. SNJO will take expert advice to choose best partners and utilise our budget most effectively.
Uist Wool	Established in 2011 Uist Wool is advancing with plans for the construction of a spinning mill and wool centre in the Outer Hebrides. As a social enterprise, Uist Wool is keen to develop practical digital media and IT implementation plans that can be embedded in the organisation from the outset.
National Youth Choirs of Scotland	*The AmbITion Approach* will assist us in generating a clear, comprehensive and confident plan for the organisation's future digital development. By improving efficiency, communication and hopefully sourcing new income streams this will provide a solid

	foundation for our ambitious artistic plans in the years ahead.
Lung Ha	Lung Ha's Theatre Company has a two strand ambition 1) To be a market leader in delivering dynamic digital communications to a wide audience 2) To be a leading example of how to open up digital communications to give people with learning disabilities the best possible opportunity to engage with our work through digital media.
Edinburgh International Science Festival	*The AmbITion Approach* is the first step in developing a coherent strategy for increasing the reach of Edinburgh International Science Festival including development of digital projects to engage wider audiences. This fund will allow us to commission external support to assess our current position and make decisions on future investment.
Cupar Arts	Cupar Arts will undertake the *AmbITion Approach* to support its plans to develop mobile resources for its festival attendees. Cupar Arts plans for ongoing staff development around mobile tools and opportunities for audience engagement in order to enhance its overall digital capacity.
National Youth Orchestras of Scotland	To research the plausibility and cost of developing the business digitally. Our key service users are between 8-25, with high on-line activity. We believe this is the ideal platform and opportunity to develop and add value to the organization with

	more online functionality while reducing admin costs significantly.
macrobert Arts Centre	To work with a specialist to review digital infrastructure and develop an organisation-wide strategic plan to: improve programming, balancing artistic and commercial objectives; deliver operational efficiencies through improved internal management systems; widen and strengthen stakeholder (including audience) engagement through consumer facing platforms such as www.macrobert.org.
Street Level Photoworks	(Applied as organisational development, advised to undertake the AmbITion Approach).
Wee Stories	Wee Stories is currently undertaking an organisational development process. The aim is to find an organisational model that enables the company's vision, while being financially sustainable. As part of this process, the *AmbITion Approach* will aim to increase the organisation's confidence and capacity in digital technologies.
Artlink Central	Artlink Central wishes to embed a comprehensive digital media and IT strategy across our organisation to enable us to enhance communiction with our diverse stakeholders, increase our reach to new audiences and 'work smarter' with our large team of consultant arts practitioners and our part- time staff.
Glasgow East Arts Company (Platform)	We want to improve our digital infrastructure to: - increase audiences and develop customer relationships through on-line ticketing; increase

	the transparency of our business and our creative choices through efficient hardware and mobile devices; and develop dynamic web content to reflect and showcase the uniqueness of our programming approach
Pitlochry Festival Theatre	To assist Pitlochry Festival Theatre in developing its first digital strategy.
Promote YT	PromoteYT seeks consultation and training for the development of a new online members' network for Scotland's youth theatre sector. Such a resource will revolutionise partnership working and collaborative training amongst Scotland's youth theatre groups and professionals, and transform the form and content of our delivery and external communications.
Vanishing Point	Vanishing Point would like to work with a specialist to review its current digital infrastructure and develop strategic plans that will improve overall operational efficiency, develop audience engagement opportunities and create opportunities for private / corporate investment and sponsorship.
Birds of Paradise	Birds of Paradise's Ambition Approach would be to identify how we can utilise digital technologies to improve and develop our organisational efficiency and proficiency, and our online promotion, communication and engagement with audience, participants and artists.
Comar	Comar is a new organisation and our vision is to become a leader amongst rurally based arts

	organisations: to inspire and resonate beyond our island home. In order to achieve this we must establish a resilient and ambitions company, capable of a wider remit artistically and regionally. With small pockets of digital proficiency evident, it is clear that to progress, we intend to firstly understand digital opportunities throughout the company and move to embed these skills at all levels.
Creative Stirling	(Applied as organisational development, advised to undertake the AmbITion Approach).
Stills	Stills wishes to investigate how we might optimise our data, systems and improve workflows across our multi-faceted business through the use of digital technology: in order to effect organisational development; to better serve our constituencies, to improve communications and transactions; to support, fundamentally, new ways of working.
Art in healthcare	Art in Healthcare is currently exploring digital opportunities (with some success already) to both improve and expand on the services we provide and additionally to generate an alternative income stream; however, we need help to effectively assess, approach and implement the necessary changes.
Off the Rails Arthouse	Off the Rails Arthouse wish to build on the initial success Off the Rails Arthouse, one year after starting out, and create a clear vision of a digital infrastructure for our future development. At this critical stage, we wish to access expertise, advice and support, to make sure OTRA reach the right

	people and meet their needs.
Scottish Sculpture Workshop	Scottish Sculpture Workshop has undergone significant change over the last three years, from a major Capital Development project to new staff and programming structure. Now is the time to clarify how we manage and what we are communicating through our digital content, and create a strategy that takes us forward.

Appendix 2: AmbITion data collected to 2011

English Pilot of AmbITion - 2007-2009

14 applications explaining the businesses cases for investment in digital development projects were collected during the 2007-2009 AmbITion pilot programme in England. 9 video case studies accompany this data, created at the end of the participant organisations' digital development journeys. See Figure 1, below for a summary of comparable data available for this phase.

Figure 1: AmbITion England 2007-09, organisations' data summary

2007-2009 AmbITion England	£ awarded	Application	Case study video
The Poetry Trust	15000	1	
Britten Sinfonia	24000	1	
Hoi Polloi	22,000	1	1
Colchester Arts Centre	15000	1	
Aldeburgh Music	15000	1	
Lantern House	0	1	1

Litfest	10000	1	1
LYA	0		
RLPO	79000	1	1
New Wolsey	50000	1	1
NWDAF/Dada	47000	1	1
New Writing Partnership/Writers' Centre Norwich	55000	1	1
Firstsite	17748	1	
Ludus Dance	50000	1	1
Oldham Coliseum	60252	1	1
	460000	**14**	**9**

AmbITion Scotland 2009-11 organisations' data summary

15 organisations received consultancy to complete business cases to be submitted to Creative Scotland. They received funds and completed digital development journeys. 16 case study videos, and 1 written case study, were completed by the AmbITion Scotland team, with editorial sign off being the organisation's responsibility. 45 other organisations undertook a digital audit.

Appendix 3: Application forms

Screenshots of the instructions

Get Support

Make:IT:Happen Fund
- Fund FAQs
- Logo Guidelines
- Peer Review Process
- Meet the Make:IT:Happen Fund Panellists
- Assessment pro formas
- Fund: AmbITion Approach
- Fund: Digital Content Development
- Fund: Organisational Development
- Fund: Sustainable AmbITion

Support from Scottish Universities
Intellectual assets and copyright support

Make:IT:Happen Fund – AmbITion Approach

Each of the Make:IT:Happen funds are different. Please read the Make:IT:Happen Fund Guidelines for an overview of what makes a successful application before completing the form below.

You can usefully gain an overview of the AmbITion Approach so that you have an idea about what you're planning to undertake, before completing this form.

You can download a reference copy of the AmbITion Approach application form to review. However, the application itself must be completed and submitted using our online form.

AmbITion Approach Fund Application Form

Events

Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
«	‹	**Jan 2013**		›	»	

From the Archive

Latest links

Played in Britain: Modern Theatre in 100 Plays, 1945-2010 for iPad on the iTunes App Store
Examples of ecologically sustainable projects powered by digital! | AmbITion
The future of the internet is intelligent machines — Tech News and Analysis?
log=out

Make:IT:Happen – AmbITion Approach Fund Application Form

Next application deadline: 3 March 2013

Items marked with * are required

Click here to resume filling out a saved form

Part 1 of 4 - Organisational Details

Organisation Name *

Contact (must be CEO or equivalent senior staff member) *

Position in Organisation *

Address *

Postcode *

Telephone *

Email *

hannah@getambition.com

Social Enterprise Company Registration or Charity number *

NEXT

SAVE PROGRESS

Click "SAVE PROGRESS" to save your form at any point. You can resume filling out a saved form at a later date.
Click "NEXT" or "PREVIOUS" to move through the form pages without losing your previously answered questions.

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Screen shots of a completed application form

Organisation Name	Uist Wool		
Main Contact	Dana MacPhee	**Position in Organisation**	Project Co-ordinator
Address	5 Scotvein Grimsay Isle of North Uist Outer Hebrides		
Postcode	HS6 5JA	**Telephone**	0779 856 1022
Email	info@uistwool.co.uk		
Social Enterprise Company Registration / Charity number	FSA no. 2739RS / SCO42442		

Why do you want to undertake the AmbITion Approach? (50 words – publishable summary)	Established in 2011 Uist Wool is advancing with plans for the construction of a spinning mill and wool centre in the Outer Hebrides. As a social enterprise, Uist Wool is keen to develop practical digital media and IT implementation plans that can be embedded in the organisation from the outset.

What are the organisation's aims and aspirations for undertaking the AmbITion Approach?
(250 words)

Through this project Uist Wool aims to:

- Fully assess our digital and IT requirements as a new social enterprise
- Engage with specialist advisors who can assist us in planning digital development that matches our vision for the business
- Compile a digital skills section within the CALANAS (Gaelic for wool-work) training programme for Mill placements - including the assessment of the internet as a tool for distance learning
- Map out a practical business and implementation plan that will take us on a positive digital journey towards and beyond our main launch in Autumn 2013
- Identify funding to support our digital and IT plans

Uist Wool's aspirations are to:
- Be a digitally robust enterprise that will embrace the advantages of technology and embed them in our social and economic activities
- Ensure that all staff and volunteers are proficient and confident in the use of digital media and IT as part of the general day-to-day duties and tasks within the workplace.
- Allow our growing membership body Friends of Uist Wool to engage with our activities through digital platforms and networks
- Proactively promote our products and services on-line
- Become recognised nationally and internationally as an intrinsic part of the artisan textile production sector in the Outer Hebrides
- Encourage creativity and experimentation in the traditional crafts sector by engagement with contemporary ideas and practice through residency programmes based at our Mill site on Grimsay. Having tech that works will be a huge asset!

Do you have a particular area in mind for development?
(250 words)

The main priority for Uist Wool, through the Ambition Approach, is to have a thorough and detailed discussion with a specialist advisor to help map out our plans for digital development. Otherwise we'll be swimming in circles unsure of which direction to take.

There is a vast array of guidance and information available to social enterprises in the IT World but it can be overpowering and just lead to endless confusion as to which options are the best for our business. Uist Wool needs to identify the right infrastructure and digital technologies that are best suited for the broad range of our activities – mill production and product development; retailing; public engagement, interpretation and education; liaison with our Membership and other communities of interest; creative practice & residencies and promotion of Uist Wool beyond our immediate locality.

Devised and run by Uist Wool, the CALANAS project started in June 2012 and is a structured skills building programme designed to offer people a staged introduction towards a career in the small-production wool & textiles sector. The goal is to offer participants a number of work-based placements in the new Mill. There is an opportunity to integrate a digital technology aspect to the Intermediate training level and it would be invaluable to receive specialist advice on developing this part of the course – again interlinked to the activities of Uist Wool.

The CALANAS project is largely supported by the European Social Fund and will run until December 2014.

What are the organisation's current key strengths and weaknesses?
(250 words)

Uist Wool is based on the principles of People, Planet, Profit: seeking to benefit the many, establishing sustainable practices and creating a viable enterprise to support the communities of the Outer Hebrides.

At this stage of our development, Uist Wool's strengths are:
- Support from the local community for the enterprise
- Strong and growing membership network, currently 142 members, a significant number is a small island community
- Potential to support the local economy through converting a natural asset – wool – into a range of artisanal products with a strong Uist brand identity
- Cohesive, active and skilled management committee and volunteers
- Ability to be flexible in sourcing new funding routes
- Local traditions of wool-work and being part of the reinvigorated textile production sector in the Outer Hebrides, namely through the international profile of Harris Tweed.

Identified weaknesses could include:
- Limited Broadband coverage in the area
- Lack of engagement with digital development from the management committee
- Limited funding sources for investment in IT
- Risk of being pigeon-holed in the geographic categories of 'remote' and 'distant' from the mainstream cultural sector.

How do you know the organisation is ready to undertake digital and operational development?
(250 words)

Uist Wool is aware of the immense value digital development has to business nowadays. The decision was taken to delay digital development until the Mill construction project was fully funded and underway. We aim to start building by October with machinery installed in early 2013 followed by a research period for product development, i.e. what types of yarn can we produce from local fleece, and what can be made from this yarn? In parallel with this work, our focus is to build a complete digital personality for Uist Wool. A project co-ordinator has been appointed, with funding from LEADER Innse Gall, to undertake start-up activities for Uist Wool.

The time is right to engage more directly with technology and move forward in IT terms towards the main launch of Uist Wool in Autumn 2013. Currently, Uist Wool has no digital infrastructure and relies on volunteers using their personal equipment and home broadband connections to do business. Clearly this situation cannot continue. There is a pressing need to identify the correct equipment to support operational development within the office base for Uist Wool adjacent to the Mill site.

Creating a workable digital development plan will allow Uist Wool to fully embed technology within the start-up phase of the business – rather than trying to do it retrospectively when staff and volunteers have evolved bad practice or ad hoc application of digital interventions.

How have you engaged with AmbITion Scotland, NESTA or SYNC in the past?
(50 words)

As CEO with Taigh Chearsabhagh, the Co-ordinator for Uist Wool, Dana MacPhee was involved at partner level with the original Ambition Scotland programme. From initial concept through to application of the business plan, developed with consultant Hannah Rudman, Dana also attended networking events and workshops in Edinburgh and Inverness.

PROJECT TIMINGS

Estimated project duration   4 weeks

Estimate project start date	19 November 2012	**Estimated project end date**	14 December 2012

PROJECT BUDGET

INCOME	Your financial contribution to the project including any cash resources you are making available (in £)	EXPENDITURE	
Own contribution	0.00		
Make:IT:Happen investment requested	5,000.00		
Other earned income	0.00		
Total Partnership Investment	0.00		
Other income	0.00		
Total Project Income	5,000.00	Total Project Expenditure	5,000.00

Total Project Surplus/Deficit	£0.00

If you have entered a figure for Other earned income, Partnership Investment or Other income above, please give a full breakdown of the amounts and sources of this income below:

Detailed Breakdown of Income -

STAFF RESOURCE   Estimate the average amount of in-kind staff time you anticipate committing to this project. (please enter either one or other)

8	days per month from	1	months

Authorised Signatory of the Company or Organisation   Dana MacPhee

I confirm acceptance of the Terms and Conditions for all related documents   Checked

Application Date / time   30 August 2012, 11.03am

Screenshot of Terms & Conditions agreement:

PLEASE STATE THE NAME OF THE PERSON WHO HAS COMPLETED THE FORM. THIS PERSON MUST BE AN AUTHORISED SIGNATORY OF THE COMPANY OR ORGANISATION APPLYING.

Authorised Signatory of the Company or Organisation *

Terms and Conditions

I confirm that the information in this application submission including the supporting documents is true and correct and I acknowledge that it is my responsibility to inform you immediately of any changes which could affect the interpretation or context of the application, and I confirm I will undertake to do this.

I acknowledge that AmbITion Scotland will endeavour to keep all information provided securely, but in terms of the Freedom of Information (Scotland) Act 2002, may be required to disclose certain information under the Act. Where I stipulate at the time of providing information to AmbITion Scotland that I believe the information should be considered exempt from disclosure under that Act, and a request to AmbITion Scotland is subsequently made for disclosure of same or all of that information, AmbITion Scotland will endeavour to discuss such disclosure with me prior to making its decision. I do, however, accept and acknowledge that the ultimate decision on disclosure rests solely with AmbITion Scotland regardless of any prior statements or requests I have issued.

USE OF PERSONAL DATA

I acknowledge that:

(i) Information supplied by me in support of this application will be processed by Glasgow Grows Audiences Ltd (trading as Culture Sparks) in order to evaluate and assess this application. That information will also be processed by Glasgow Grows Audiences Ltd (trading as Culture Sparks) and reported to Creative Scotland for accounting, statistical and monitoring purposes.

Appendix 4: Reflectionnaire - online screenshots

Text only

Amb:IT:ion
scotland

We would like to ask you a few questions about your involvement in the AmbITion Scotland Make:IT:Happen fund.

Please take just 10 minutes to tell us about your experience. Click 'Next' to start the survey.

Reset   Next >>

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www.culturesparks.co.uk/surveys/mih/   Google

isited ▾ A&L   Songs   Enviro   Napier   EndNote   Renew mission |...   Lockerz Grab It   iPlayer   Incredibox   Bool
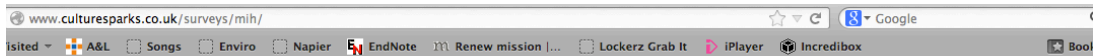
Text only

Amb:IT:ion
scotland

The Make:IT:Happen fund

These questions are about your overall experience with the Make:IT:Happen fund and AmbITion Scotland.

Q1   **How much has your involvement in the Make:IT:Happen fund affected your organisation's digital capacity?**

○ Increased a lot
○ Increased a little
○ Neither increased nor decreased
○ Decreased a little
○ Decreased a lot

Why?

<< Back   Reset   Next >>

Amb:IT:ion
scotland

Q2   **How much has your organisation's confidence around digital tools been affected by your involvement in the project?**

○ Increased a lot
○ Increased a little
○ Neither increased nor decreased
○ Decreased a little
○ Decreased a lot

Why?

[text box]

[<< Back] [Reset] [Next >>]

Amb:IT:ion
scotland

Q3   **How much has your organisation's digital capability been affected by your involvement in the project?**

○ Increased a lot
○ Increased a little
○ Neither increased nor decreased
○ Decreased a little
○ Decreased a lot

Why?

[text box]

[<< Back] [Reset] [Next >>]

Amb:IT:ion
scotland

Q4   **Do you feel that your organisation is now more digitally creative as a result of participating in the project?**

○ Yes
○ No

Why?

[text box]

[<< Back] [Reset] [Next >>]

Amb:IT:ion
scotland

Q5   **Have you developed any new income generating opportunities as a result of your digital development project?**

     ○ Yes
     ○ No

If yes, please tell us about it

[ ]

Q6   **Have you as part of this project developed any new collaborations with arts organisations, technology developers or digital media companies?**

     ○ Yes
     ○ No

If yes, please tell us about it

[ ]

    [<< Back] [Reset] [Next >>]

Amb:IT:ion
scotland

Q7   **As well as grant funding from the Make:IT:Happen fund, AmbITion Scotland provided other resources.**

Please tell us which of the following resources provided by the programme that you have used: (select all that apply)

☐ *AmbITion Scotland's event programme (Webcast Seminars, Roadshows, Workshops, Networking Events, Annual Conference)*
☐ *Learning Resources (How To Guides, How To Videos, Learning Journeys etc)*
☐ *AmbITion Scotland Case Studies*
☐ *AmbITion Scotland Live Webcasts*
☐ *AmbITion Scotland's archive of video on demand*
☐ *The AmbITion Ex:change*
☐ *The AmbITion Scotland online network and users forum*
☐ *Internship brokerage through AmbITion partners or intern funding from AmbITion Scotland*
☐ *Signposting to further support and information*

    [<< Back] [Reset] [Next >>]

Amb·IT·ion
scotland

Q8 **How helpful did you find these reosources?**

Please only answer about those which you used, select "Not Applicable" for those that were not used.

	Very Helpful	Somewhat Helpful	Neither/Nor	Somewhat Unhelpful	Very Unhelpful	Not Applicable
AmbITion Scotland's event programme (Webcast Seminars, Roadshows, Workshops, Networking Events, Annual Conference)	●	○	○	○	○	○
Learning Resources (How To Guides, How To Videos, Learning Journeys etc)	○	○	○	○	○	○
AmbITion Scotland Case Studies	○	○	○	○	○	○
AmbITion Scotland live webcasts	○	○	○	○	○	○
AmbITion Scotland's archive of video on demand	○	○	○	○	○	○
The AmbITion Ex:change	○	○	○	○	○	○
The AmbITion Scotland online network and users forum	○	○	○	○	○	○
Internship brokerage through AmbITion partners or intern funding from AmbITion Scotland	○	○	○	○	○	○
Signposting to further support and information	○	○	○	○	○	○

<< Back   Reset   Next >>

Text only

Amb:IT:ion
scotland

Q9 **Have you as yet created your rich media case study?**

● Yes
○ No

If yes please tell us how you felt about the experience

[text box]

<< Back   Reset   Next >>

Amb:IT:ion
scotland

Q10   AmbITion Scotland is working with an external research agency and has links to research partners within higher education.

May we share the information you have submitted (in an anonymised form) with external researchers?

○ Yes
○ No

Q11   In some cases we may wish to follow up on responses to this survey.

Please provide your email address if you are happy for us to do this:

[   ]

[<< Back] [Reset] [Next >>]

Appendix 5: Rich media case study reports

The rich media case study creation instructions in detail:

In addition to the basic financial monitoring reports AmbITion Scotland are asking programme participants who have received a grant from the Make:IT:Happen Fund to provide a rich media case study to be shared on the AmbITion Scotland network – www.getambition.com. This guidance is designed to give you the basic information you will need to create this rich media case study.

What do we want you to do?

AmbITion Scotland is looking for you to tell your digital development story in your own words and share it with the programme's wider constituency. The medium of storytelling is up to you!

When you are ready to start contact Ashley Smith Hammond, AmbITion Scotland Project Manager to set up authoring privileges on the site. Your rich media content will appear embedded in a new post and be linked to your Ex:change profile as well as to the author's personal profile.

Why are we doing this?

• The Make:IT:Happen fund processes are about transparency and participation. From our peer review system, to our panel make up to our open reporting process – AmbITion Scotland have built information sharing and participation into the core of the programme.

• We want to create a body of case studies of digital development from the Make:IT:Happen Fund in the organisations' own voices.

• To help AmbITion Scotland participants learn from each other (peer learning).

• To show potential applicants what kinds of projects have already been funded by AmbITion Scotland

• To inspire other arts, cultural and heritage organisations with what is possible by showing the full range of digital development projects we've funded

How to start?

Ask yourself what medium can tell your story best?

What medium?

Possible tools

Is it quite visual – can you bring it to life with pictures and graphics? Perhaps you could make a narrated slideshow.

Slideshare

Screencast-o-matic

Screencast

Prezi

Does it involve your audiences or staff that you can show in action – should it be a video? (Learn more about how to do this from our learning journey on digital video.)

YouTube

Vimeo

Would the different voices of the people involved bring it to life – can you make it a podcast?

Audioboo

Soundcloud

Consider what have you learned in the digital development process and **show off** what you have learned in the reporting.

Plan it out with a **storyboard** or an outline so you can make sure you have included where all the key information will fit in. Try and make a plan that fits within your current capacity. We don't want this to cost you money – there's no need to hire external professionals to do this for you.

Make sure you **plan** in enough time for the planning, production and postproduction phase.

What is the story? What did you learn?
First you need to tell people who you are and what you do. Then set the stage.
• What did you do?
• How did you do it?
• What benefits have you seen?

That's the context for your story. Next comes the core of it – telling people what you did:
A good place to start is with the basic questions you answered in your application around your project description:
• Did the project change from the original description? How? Why?
• What were your organisation's strengths and weaknesses? Have these changed?
• Why did you want to do it?
• How did the project fit within the organisation's core mission?
• What were the risks and how did you mitigate them?
• Did you encounter any unexpected problems?

Finally try to demonstrate the impact your project has had. Some key questions that you could answer:
• Measure against the metrics you originally proposed. Did you meet your aims?
• What did you learn from the process?
• What can other organisations learn from your experience? What would you have done differently?
• What do you want to do next?

These are suggestions to get you started, so don't be limited by them! You only need to answer the questions that are relevant for your project. You don't have to answer them all. As with any good story an example speaks volumes. Remember to show rather than tell.

General guidance
• Tell your story honestly and plainly
• Don't be afraid to try something new (in terms of your storytelling medium) – this is a learning place
• Fight the feeling that 'it's not done yet'. Just fill people in on where you're at to date. Tell them what you've learned so far. Tell them what is coming next and why.
• Your main audience is your peers. Let that set the tone for how you present the story of what you have learned.

- AmbITion Scotland values learning from mistakes as well as successes. Please don't try and 'spin' your story, if something didn't work. We've all been there; it's about what you learned the experience!

The content management system backend uploading page for rich media case studies:

An example rich media case study, publicly available online (example: Uist Wool, March 2013)

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Search...   Or login via your preferred social network...

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26	27	28	29	30	31	

«   ‹   May 2014   ›   »

From the Archive

Uist Wool Ambition Approach Case Study

By Dana MacPhee
11 March 2013

Uist Wool – AmbITion Approach Case Study Podcast

Uist Wool is a community benefit society that will operate a new spinning mill and wool centre on the island of Grimsay in the Outer Hebrides

Uist Wool is based on the principles of People, Planet, Profit: seeking to benefit the many, establishing sustainable practices and creating a viable enterprise to support the communities of the Outer Hebrides.

Crofting
Uist Wool will work with crofters so that together we can add value to local fleece, and help to secure a future for sheep.

Textiles
Uist Wool will enable craftspeople to create uniquely Hebridean products, meeting demand for natural fibres and ethical products in both fashion and furnishing.

Cultural Heritage
Uist Wool will preserve the age-old island traditions of woolwork, and interpret them

Get social!

Network Members

Join the AmbITion Network

Make connections, apply for funding and post questions or jobs in the forum!

Join our Mailing List

First Name
Last Name
Email
SIGN UP

AmbITion tweets

:IT:
AmbITion
Mills&Boon go digital w online story

Appendix 6: The Business Model Canvas

A blank canvas:
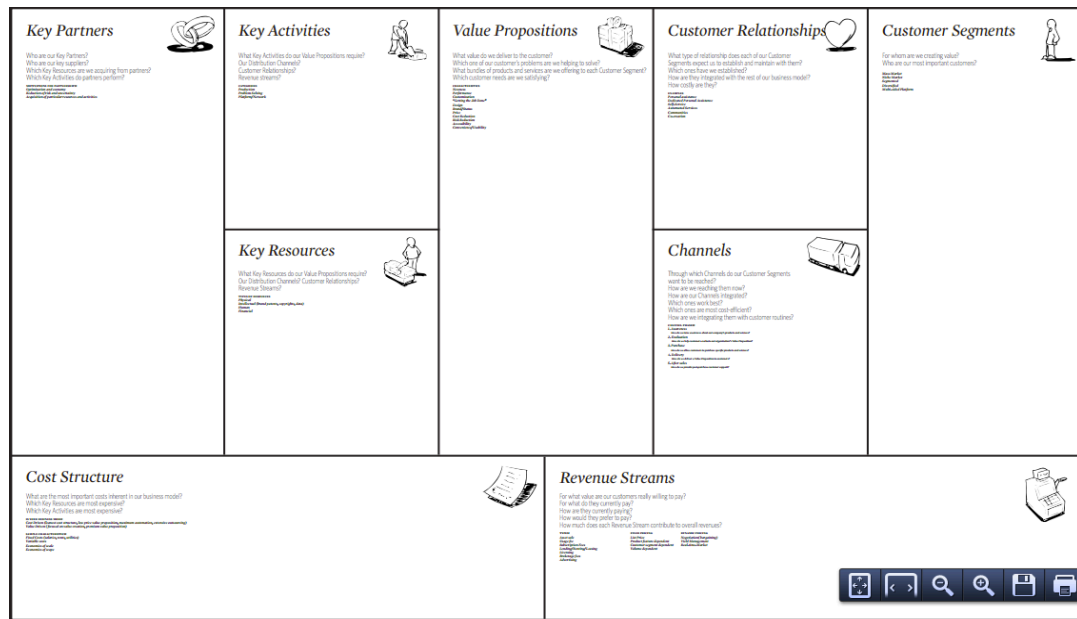
A completed canvas (thanks to Uist Wool for permission to reproduce their work):
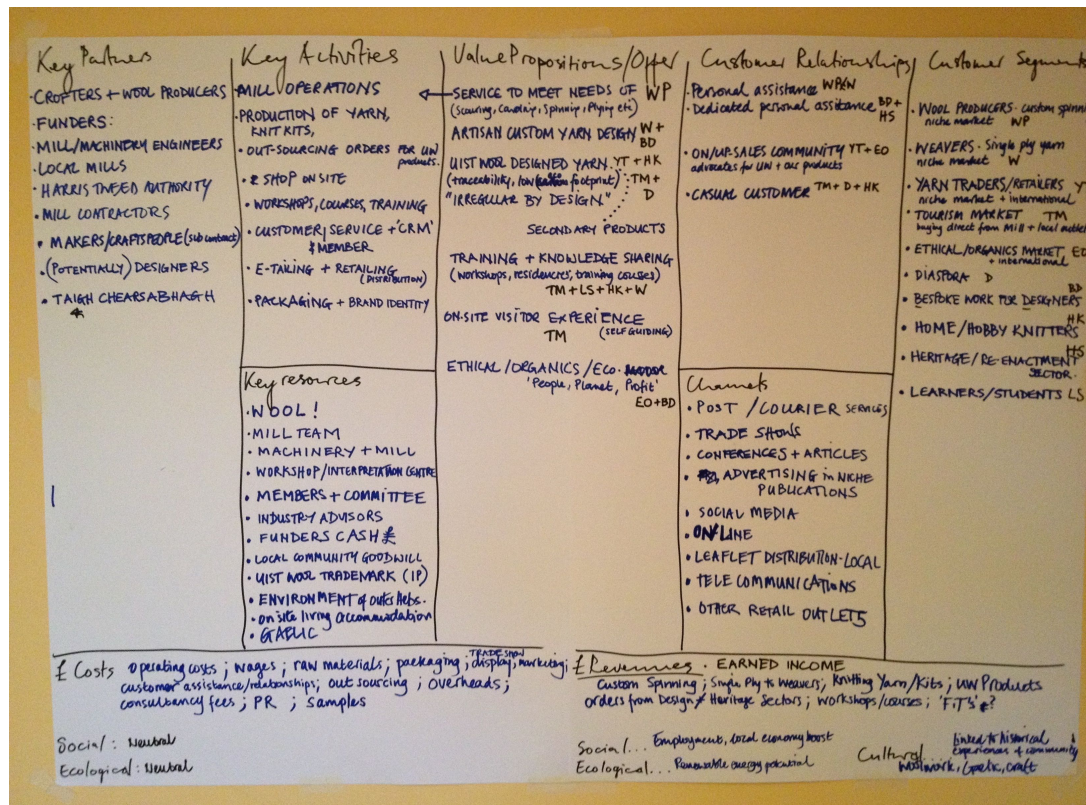
Appendix 7: The Federation Scottish Theatre's Digital Action Research Project website

Screenshots of the private Posterous.com website set up to track the action learning process, administer the project and archive the learning:

Appendix 8: The Federation of Scottish Theatre's Digital Action Research Project reflectionnaire

*1. Please try and truthfully describe your answers - this reflective questionnaire needs your insights into what DIDN'T work, as well as what did!

The results will be used by Hannah Rudman to compile case studies and good practice resources that will be shared publicly, and by FST for project evaluation purposes.

All questions require an answer, please just write n/a if a question does not apply to you or you can't answer. All responses will be treated anonymously, and quoted as such. Thanks!

Firstly, what organisation are you with and what's your job title there?

*2. Describe your part in your organisation's FST Digital Action Research project (role, responsibilities):

*3. Why did your organisation originally want to conduct a digital experiment? Describe the motivations:

*4. Describe any barriers that you came up against as you progressed your digital project (e.g. contractual, technical, managerial, operational, etc.), and explain how you overcame them:

*5. Define the impact of this digital development on the live work and process of making theatre (planning, rehearsing, performing):

*6. Describe whether you developed new contracts for the digital experiment, and the artistic/creative/technical teams' reactions to any new contracts:

*7. Would you be willing to share any contracts that you've developed?

◯ Yes, as they are   ◯ No   ◯ Yes with caveats

Note your caveats

*8. From your area of expertise, describe whether the artistic direction, technical direction, and/or operational management of the digital experiment needed a new approach - and what that was:

*9. Can you estimate a cost on the creation, production and distribution of the digital experiment? (Break it down, or describe costs relating to your area if its easier):

*10. Define whether you recouped your investment of time and/or money, and explain whether you gained any other expected or unexpected benefits:

*11. Describe any new systems, processes or targets you set up for this project:

*12. Define whether these have now become normal practice in your organisation?

*13. From your perspective, what did you learn about the impact of digital developments on your job role's day-to-day activities?

*14. Can you define whether you personally increased any of your own digital capabilities, capacities, confidence, creativity through taking part in this project?

*15. What about your organisation?

*16. Describe how you measured the success of your organisation's digital experiment (or planned to), and highlight any results you were pleased with (e.g. new audiences? increased audiences? increased reach/scale/accessibility? new artist/technical collaborations? etc.):

*17. If you had to define the main outcome, what would it be?

*18. How might you describe the opportunities now available to your organisation because of what you learnt through your organisation's digital project?

*19. Is your organisation now doing anything differently (artistically, operationally, business model practices) because of this digital project?

FST: Digital Action Research Project Reflectionnaire

Design Survey   Collect Responses   **Analyze Results**

View Summary
Browse Responses
Filter Responses
Crosstab Responses
Download Responses
Share Responses

Default Report ▾   + Add Report

Browse Responses

Displaying **3** of **4** respondents

« Prev   Next »   Jump To: 3   Go »

Select a page to view below or view all pages:

«   #1. ▾   »

Response Type:	Collector:	
Normal Response	Web Link (Web Link)	Edit Response Delete
Custom Value: *empty*	**IP Address:** 139.153.229.212	
Response Started: Saturday, March 17, 2012 4:18:56 AM	**Response Modified:** Saturday, March 17, 2012 5:12:35 AM	

1. Please try and truthfully describe your answers - this reflective questionnaire needs your insights into what DIDN'T work, as well as what did! The results will be used by Hannah Rudman to compile case studies and good practice resources that will be shared publicly, and by FST for project evaluation purposes. All questions require an answer, please just write n/a if a question does not apply to you or you can't answer. All responses will be treated anonymously, and quoted as such. Thanks! Firstly, what organisation are you with and what's your job title there?

macrobert - Film, Media and Digital Innovation Officer

Response Type:	Collector:	
Normal Response	Web Link (Web Link)	Edit Response Delete
Custom Value: *empty*	**IP Address:** 86.177.231.57	
Response Started: Thursday, April 26, 2012 8:09:41 AM	**Response Modified:** Thursday, April 26, 2012 10:40:12 AM	

1. Please try and truthfully describe your answers - this reflective questionnaire needs your insights into what DIDN'T work, as well as what did! The results will be used by Hannah Rudman to compile case studies and good practice resources that will be shared publicly, and by FST for project evaluation purposes. All questions require an answer, please just write n/a if a question does not apply to you or you can't answer. All responses will be treated anonymously, and quoted as such. Thanks! Firstly, what organisation are you with and what's your job title there?

Stellar Quines Theatre Company (ex) General Manager

2. Describe your part in your organisation's FST Digital Action Research project (role, responsibilities):

Managing ANA in 3D project as part of wider AmbITion programme. Responsibilities included: liaising with Digital Design Studio on completion of Feasibility Study into 3D projection; liaising with relevant industry bodies (i.e. Equity) around rights and contracts; producing and distributing documentation explaining the project to all artists/practitioners; securing written agreement to take part from all artists/practitioners; monitoring of project implementation (as carried out by Creative Producer); presentation of project to FST group, at Digital 2012 conference and other interested parties.

3. Why did your organisation originally want to conduct a digital experiment? Describe the motivations:

Stellar Quines is a Partner on the AmbITion programme. This opened our eyes to how digital technology might be used organisationally, for business reasons and artistically in pursuit of the company's core remit. In particular, as part of our AmbITion programme, we wanted to experiment with the creation of new digital/theatrical hybrid products that could be of interest both artistically and as a complement to our live touring product (for the purposes of geographical reach and future exploitation). We also thought it would be fun!

Appendix 9: The Federation of Scottish Theatre's Action Research Project - written and rich media case studies

Screenshots of written case studies:

Case Study: Dundee Rep – collaborating on a joint digital service/platform/channel

By Hannah Rudman
5 September 2012

AmbITion Scotland's content sharing partnership with Federation of Scottish Theatre's Digital Action Research project once again enables us to publish another great case study packed full of learning and advice about how to collaborate with other organisations on how to launch a joint digital service/platform/channel.

Dundee Rep: collaborating with cultural organisations to launch a joint digital service, platform, or chann...

Screenshots of the videoed rich media case studies:

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28	29	30	31			

«   ‹   **Jan 2013**   ›   »

From the Archive

EMPORIUM
SCOTLAND'S THEATRE MARKETPLACE

Digital Action Research Project Concludes – Watch the Case Studies!

By Hannah Rudman
28 September 2012   Edit post

The Federation Scottish Theatre's Digital Action Research Project came to a conclusion this week, with a showcase of the case studies emerging from the digital experiments undertaken by the five Scottish performing arts companies involved. Funded by The National Lottery via Creative Scotland, the FST's project has been running for 14 months, facilitated by Hannah Rudman.

Jon Morgan and Hannah Rudman introduce and give an overview of the project:

9:35   HD   blip
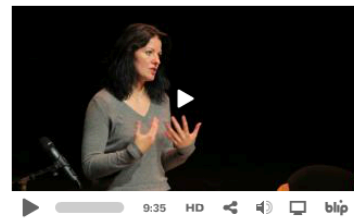
Grahame Reid of macrobert presents their case study story:

JACKIE AND THE BEANSTALK   23 NOV - 7 JAN

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Last Name

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SIGN UP

AmbITion tweets

True! RT @CultureSparks: free @getambITion #digital training & networking events are now open for booking http://t.co/JjUQUdKL #getambition
   1 day ago.

@getambition

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Related Articles

cryptic
Interim Mini Case Study: Cryptic (AmbITion Scotland 2010)
Case Study in collaboration: Cryptic & Ludometrics

dundee rep
Case Study: Dundee Rep – collaborating on a joint digital service/platform/channel

federation scottish theatre
Digitising live lyric and narrative performance – resources

hannah rudman
Getting Digital Webinar 4: Mobile Operator – Gavin Dutch, Loc8 29.07.10
Roadshow South: Bill Thompson, Intro by Hannah Rudman, 10th June 2010
Webinar 5: Central Station – developing the online social network

stellar quines
AmbITion Scotland video case study: Stellar Quines
5 minute theatre, Timespan and Sadler's Wells – all performing well online!
AmbITion organisations are 3D filming live theatre & crowd funding albums!

Latest links

The Art Documentary of the Future
Played in Britain: Modern Theatre in

JACKIE AND THE BEANSTALK   23 NOV - 7 JAN
ONE OF THE BEST PANTOS IN SCOTLAND!
MACROBERT ORIGINATION

6:35   HD   blip

Graham King of Dundee Rep presents their case study story:

Collaboration
• Safety in numbers
• Cost efficiencies
• Co-opetition
• Collective creativity
• A bigger little black book
• Joint buying power

6:43   HD   blip
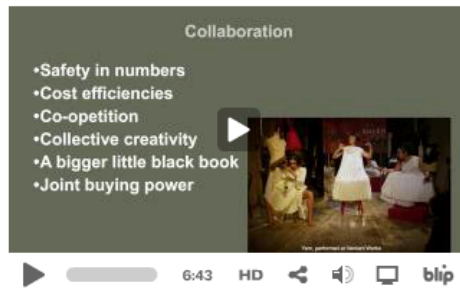
Lesley Anne Rose of Stellar Quines presents their case study story:

Where we are now   ANA
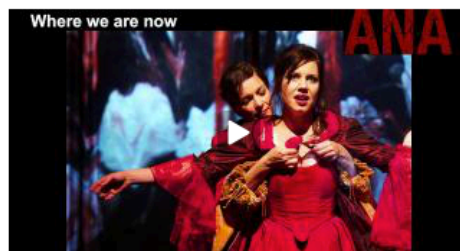
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Drupal expert wanted

Opportunity to help Make:IT:Happen

Web development: Knowledge Bank

Stage Door Administrator

Examples of ecologically sustainable
projects powered by digital! | AmbITion

Judith Doherty of Grid Iron presents their case study story:

FST's Digital Action Research Project
is supported by The National Lottery
via Creative Scotland

http://www.sc_ishtheatres.com
http://www.getambition.com

Rudman:consulting
get:digital

http://consultrudman.com

8:10   HD   ⏻   🔊   🖥   blip

Appendix 10: Activity and results of the Federation of Scottish Theatre's Digital Research Learning Project 2011-12

Overview of the Federation of Scottish Theatre's Digital Action Learning Project 2011-12

The Federation of Scottish Theatre (FST) received an investment of National Lottery funds via Creative Scotland to help them support their members through a unique point in history - a huge opportunity - for the theatre and dance sector. Recognising the impact of digital developments and the web on the cultural sector, FST wanted to establish an action research group that might explore questions such as:

- What does it mean when the sector is no longer the only gate keepers and arbiters of access to culture?

- How does the sector deal with content being shared in ways which cannot control?

- How does the sector engage with user generated cultural content and discussions and dialogues not started by the organisations in the sector? What about the digital developments around recording and distributing on and off stage content?

All arts organisations are still working out the answers to these questions, and the theatre sector in Scotland is beginning this development journey. Digitisation has evolved enough - in terms of the technology & bandwidth - for the theatre sector to no longer have to make quality and aesthetic compromises that damage their integrity as producers of excellent art and content, and excellent cultural experiences. The theatre and dance sectors can digitise and distribute core product in ways that no longer fall short of the theatre sector's high aesthetic and quality standards - live simulcasting to cinemas; HD digital recordings; and webcasting/live streaming are new ways of new audiences experiencing theatre.

The project was not about encouraging Scottish theatre and dance companies towards digitising live theatre just for the sake of it. It was about encouraging the sector to begin to consider live work as a potential new distributed live product, which can increase access, scale, reach, impact, and legacy of work, as well as attracting a new demographic and income streams. Through a programme of action research following the earlier adopters' journeys, we explored the opportunities and the challenges of digitising core artistic product; and shared experiences, learnings, and best practice around digitising on- and off- stage content: for distributed live, and on-demand delivery, with both the theatre sector, and the wider cultural sector.

Rudman Consulting designed and delivered the Digital Action Learning Project over 2011-12 for FST.

Activity of the Federation of Scottish Theatre's Digital Action Learning Project 2011-12

A digital actionlearning project was established to support individual organisations' experiments; an action learning network (or set); and the creation of resources that could be widely shared. The project was set up in June 2011, consisting of macrobert, Cryptic, Grid Iron, Dundee Rep, and Stellar Quines - five theatre companies that were already considering digitising product of different geography, scale, operating model with digital technologies. (A selection process of submitting a short application had required organisations to define their experiment and business case for the opportunities they envisaged it might return). Two associate members joined the group - On at Fife, and National of Theatre Scotland - invited to share their experience of having already produced digital live work; Hannah Rudman of Rudman Consulting facilitated the group; and FST staff supported and observed the network.

Action learning methodologies were engaged for the organisations to undertake their individual enquiries: this enabled the group to work together as an action

learning set. Action learning methodology encourages those seeking change to engage with a cyclical experiential ethos of learning by doing: thinking/planning, acting/doing, and reflecting/evaluating (Pedler, 2005).

Over 14 months:

- the action learning set met together for five half day sessions to report on their own research and developments; to hear about relevant external digital developments and opportunities; and to collaboratively work on solving emerging issues

- the action learning set was communicated with and kept up-to-date about new developments and case studies by a blog that automatically emailed everyone (this was a private website, accessed only by the group, see Figure 5.2.2.1 below);

- the action learning set commissioned Hannah Rudman to generate best practice resources (a Research Report on audience responses to digitised live content, and a How To Guide on choosing platforms and business models for digitising live content) to be shared with FST and AmbITion Scotland, available online via AmbITion Scotland and Federation of Scottish Theatre's websites;[88]

- individual participant organisations fed back to the wider FST membership via FST meetings in December 2011 and September 2012: all organisations' final presentations to the FST members meeting September 2012 were filmed and are available online as video case studies via AmbITion Scotland and Federation of Scottish Theatre's websites;

- individual participant companies' digital development experiments were supported through 3 days of consultancy with Hannah Rudman of Rudman Consulting;

- individual participant companies' stories and activities were captured by Hannah Rudman of Rudman Consulting as formal case studies and tip sheets, available online via AmbITion Scotland and Federation of Scottish Theatre's websites.

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[88] http://scottishtheatres.com and http://getambition.com

Two of the project's organisations benefitted from the opportunity of working with Scotland's Universities. Grid Iron and National Theatre of Scotland developed relationships with Edinburgh-based Higher Education Institutions that resulted in research and development projects being undertaken, with the university effort funded by innovation vouchers.

Screenshots of the private Posterous.com website set up to track the action learning process, administer the project and archive the learning can be viewed in Appendix 7.

Results of the Federation of Scottish Theatre's Digital Action Learning Project 2011-12

Key successes from the action learning set were:
- New work - the digital artistic experiences and productions created and being created: culturedundee.com; Cryptic's mobile app; Leaving Planet Earth; the Popcorn Panto; and ANA in 3D.
- Increased digital confidence, capability, and capacity in the producing organisations - evidenced by their production of new work; cross-sector collaborations; new processes and operational capabilities; and capacity to undertake new, innovative digital work.
- Positive attitudes to, and the ability to measure risk around, undertaking digital R&D, innovation, and experimentation.
- Openness - the Digital Action Research Project group's preparedness to share with each other and the wider sector their successes, failures, and learnings has strengthened the critical mass and collective learning around digital productions in the performing arts. This is evidenced by the positive response to and interest in the project from the wider membership of the Federation of Scottish Theatre.
- Cross-sector collaborations - performing arts companies are now working to create digital work with technology companies, Higher Education

Institutions (HEIs), National Theatre of Scotland, as well as other cultural organisations of differing art forms from across Scotland.

Emerging key learnings were:

- Digital productions of live content are enhanced by strong collaborations with technology/digital/relevant university partners - artistic control does not need to be relinquished, but production processes and plans benefit from their early inclusion. Developing a common language is often key to the relationships being strong - seek to work/workshop with potential partners as early as possible.

- Creative teams, cast and crew are most amenable to the idea of participating in the creation of digitised productions of live work when they are approached directly, and before rehearsals start.

- Securing the rights for digital dissemination online can take a lot of time - start doing this early, engage with the talent unions in time, and remember that digital rights have to be global and in perpetuity unless the content is being "taken down" at a later stage.

- Including the digital production in core but normal practice planning meetings and documentation increased the likelihood of the digital productions being successful.

- Creating digital productions can cause organisations to change significantly: new business models, operational practices, artistic production processes, audiences, collaborators, and stakeholders are introduced to the organisation. Some of these become embedded   and therefore have resource implications.

- Engaging boards and senior management teams with the digital experiments has added to their likelihood of success and being embedded in the organisation as a new asset.

There were 5 organisations on the Federation of Scottish Theatre's Digital Action Learning Project. The data collected about the organisations is listed in Figure 1, below.

Summary of data from organisations on FST

Federation Theatre Digital Action Research Project	Scottish Application	Video Case Study	Written Case Study
Stellar Quines	1	1	1
Dundee Rep	1	1	1
macrobert	1	1	1
Cryptic	1		1
Grid Iron	1	1	1
	5	**4**	**5**

Appendix 11: *AmbITion Approach* Fund guidelines and application pack details

General Make:IT:Happen Fund Guidelines[89] and FAQs

Introducing AmbITion Scotland's Make:IT:Happen Fund

Make:IT:Happen is a new fund created by **AmbITion Scotland** specifically for organisations in the arts, culture and heritage sector to help them capitalise on the opportunities presented by digital technologies. Over £400,000 is being awarded to a range of organisations to enable them to increase business capability, capacity, creativity and confidence across **four digital investment funds.**

Make:IT:Happen funds – ranging from £500 to £10,000 – could make a real difference to your organisation by supporting it to embrace and adapt to the social, cultural and economic changes that the digital technology revolution is driving. Funds can be used to support a project in its entirety or augment a bigger digital ambition.

About AmbITion Scotland

AmbITion Scotland is a £1m digital development programme for 2012-14 specifically designed to support individuals and organisations working in the arts, culture and heritage sector in Scotland. The team helps organisations and individuals grow to make the most of the opportunities of digital technologies. AmbITion Scotland 2012-14 succeeds the AmbITion Scotland 2009-11 programme, and has a wider-reaching remit.

The AmbITion Scotland programme, and also the Make:IT:Happen initiative, is funded through Creative Scotland's Cultural Economy programme. This programme focuses on organisational resilience and sectoral sustainability and aims to create better cultural businesses. (This is different from the support for digital creative practice, which falls into other Creative Scotland funding programmes).

Make: IT:Happen – Four Digital Funds

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[89] Also see online at http://getambition.com, and screenshots of the downloadable and screen-readable pdf versions in Appendix 3.

Make:IT:Happen is tailored to specific business outcomes across four digital investment funds:

AmbITion Approach (up to £5,000)
This fund supports organisations during the early stages of their digital development by providing an external specialist to help them assess and develop a wide-reaching strategy for organisational change.

Digital Content Development (£500-£10,000)
This fund gives organisations the opportunity to enhance their digital development activity through the creation, or better use, of digital content.

Organisational Development (£500-£10,000)
This fund supports organisations to take advantage of digital technologies to grow their business, develop ideas, improve operational capacity and increase their audience reach.

Sustainable AmbITion (£500 - £5,000)
The fund supports organisations to be carbon-aware and improve their green credentials through funding new digital technologies or approaches.

Make:IT:Happen Fund – Four Big Aims

Ambition Scotland aims to foster new creative partnerships, increase operational efficiency, support experimentation and enhance public engagement with the arts, culture and heritage sector by encouraging a more strategic approach to the use of digital technologies.

When considering your idea you should think how Make:IT:Happen funds will it help you to:

Partner up: work in partnership and collaborate with others through digital technologies.

Be a better business: become more resilient by creating new revenue streams, reducing operational costs, finding efficiencies and added value within your business or organisation.

Make your content work harder for you: create and exploit new digital content, or digitised versions of core content.

Become more engaged: experiment with new methods of engagement, widen your reach to audiences, participants or visitors.

Make:IT:Happen, why should I apply..?

Are you questioning how you can make your organisation more digitally intelligent or digitally fitter? Do you have great ideas that are centred on developing your artistic programme or services with digital technology?
...then Make:IT:Happen with ambitious insight (AmbITion Approach Fund)

Is your business keen to explore new methods of digital engagement in a bid to increase your audience base, online sales or income generally by enhancing your digital communications and dialogue with audiences?
...then Make:IT:Happen with bigger hits (**Digital Content Development Fund)**

Do you need to think strategically about how digital technology fits into all areas of your business or does your team want to explore how digital technologies could help you establish more efficient and robust ways to run your venue?
...the Make:IT:Happen with better tools (Organisational Development Fund)

Perhaps you are part of a group, organisation or venue that wants to become 'greener', but you don't have the right digital software, hardware or focus to achieve your ambitions.
...then Make:IT:Happen with smaller footprints (Sustainable AmbITion Fund)

Who can apply and when?

Applications for Make:IT:Happen funds are made online

Who can apply for Make:IT:Happen funds?

Not for profit arts, culture and heritage groups and organisations e.g. groups or organisations with charitable status, social enterprises
o   with relatively little or no digital knowledge/experience
o   that have some competence with digital projects, but limited resources

Private companies and individuals are not eligible to apply to the Make:IT:Happen fund unless they are working in partnership with a not for profit arts, culture and heritage organisation

When can you apply?

There will be five application periods between July 2012 and September 2013 as shown below.

The application periods:

July – August/September 2012   (decisions by 30 October 2012)
October – December 2012   (decisions by 31 January 2013)

January – March 2013 (decisions by 30 April 2013)
April – June 2013 (decisions by 31 July 2013)
July – September 2013 (decisions by 30 October 2013)

Applications for the first phase of funding opens on **4 July, 2012** and each of the four digital development funds has a different deadline date for applications:

AmbITion Approach: 2 September 2012
Digital Content Development: 19 August 2012
Organisational Development: 16 September 2012
Sustainable AmbITion: 30 September 2012

Please refer to the guidelines for each of the four digital funds for all application deadline details.

How many applications can be made?

Please note that you can only apply to one Make:IT:Happen fund during each application period. However, you can apply to the other Make:IT:Happen funds, or re-apply to the same fund if not initially successful, in subsequent application periods. **This means that it is possible to apply to all of the funds at some point, which could help you achieve real, incremental digital growth.**

If you're a relative newcomer to digital technology we suggest that you make a submission to the *AmbITion Approach* fund first. Not only will this help to give you a solid starting point, but it could also build your business case for subsequent Make:IT:Happen funding.

FAQs (in guidelines documents and as webpages)[90]

1. Can I apply to more than one Make:IT:Happen Fund area at a time?
You can only apply to one Make:IT:Happen fund during each application period. However, you can apply to the other Make:IT:Happen funds, or can re-apply to the same category if not successful, in subsequent application periods

2. If I have previously received funds from one area of the Make:IT:Happen Fund, can I apply again to another area?

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[90] See also http://getambition.com/support/make-it-happen/fund-faqs/ accessed 19th July 2013

Yes. You can strengthen your application by showing how you will build on the strategic impacts gained from previous Make:IT:Happen investment.

3. Can I reapply to same area of the Make:IT:Happen Fund if I was not successful the first time?

Yes. However, please do not resubmit the same application. You will likely need to rethink your approach and make changes to your application even if you submit an application for the same/similar project.

4. Can I reapply to another area of the Make:IT:Happen Fund if I have already made an unsuccessful application?

Yes (however, see questions above for same criteria applying!)

5. Can individuals apply?

If they apply in partnership with an organisation (please see Guidance)

6. What happens if my partner/or other funder in the project pulls out of the project? Can I find another partner/funder?

AmbITion Scotland will help as much as possible in the unlikely event that this situation occurs. Each case will need to be assessed on a case by case basis. These situations are unlikely but not unheard of. Please see the AmbITion Scotland case study What To Do When Things Go Wrong <link> for how one organisation dealt with such a situation.

7. Can the money be used to fund a new or temporary staff member to carry out the digital development work?

No. The AmbITion Scotland programme is committed to organisational development from within. We would prefer to support further training for staff members to gain the skills and embed them in the core team. Digital development should be undertaken as part of core organisational development as it can and will touch so many different areas of the organisation.

8. When will I receive the funding if I am successful?

Once the contracts are signed and in place we will advance the main budget retaining a proportion until the final reporting elements are received.

9. Will I have to use an AmbITion Scotland advisor if I apply for the AmbITion Approach fund?

Yes. AmbITion Scotland has brokered relationships with a pool of external specialist advisors who are experienced in supporting organisations through a process of change and the use of digital technologies. Applicants will be matched with an advisor in consultation with the AmbITion Scotland team. The final choice will rest with the organisation.

10. Why are the AmbITion Approach Funds, Organisational Development Funds and Sustainable AmbITion judged by a panel whist the Digital Content Development Fund is judged by a peer review process?

AmbITion Scotland's commitment to peer review extends to the panel make up. The pool of panellists includes participants from the 2009-11 round of AmbITion Scotland activity. The peer review system is a new model of funding and we are testing its application on one area of the fund. Additionally, some of the other funding areas call for more specialised knowledge to assessing applicant's potential to succeed. Some funding areas that are focused on business operations might contain confidential information which may not be appropriate for more open voting.

11. How will the peer review process work and why has AmbITion Scotland decided to judge applications to the Digital Content Development Fund using this method?

AmbITion Scotland believes that the members of the cultural and heritage sectors have a collective experience to share and accordingly invites them into the decision making process. We've got a full write up of the peer review process here <link>

The Peer Review process is a new way of making decisions about disbursing funds for AmbITion Scotland; we will be learning from this pilot scheme and sharing our findings. We believe it is a positive learning opportunity which will engage participants more deeply & build equity in the application process.

The model is also resonant with the principles of open innovation, which broadly hold that exposure to and influence from ideas that originate both inside and outside an organisation can promote greater innovation and benefit the multiple players involved in the sharing. More info from: http://openinnovation.berkeley.edu/what_is_oi.html http://www.openinnovation.eu/open-innovation/ See also AmbITion

Scotland's webinar on Open Innovation presented in partnership with the Festivals Innovation Lab http://www.getambition.com/2011/03/webinar-8-open-innovation-open-data.

12. Do you know of anyone else who does something similar to the peer review process?

AmbITion Scotland colleague Kevin Harrison of Artlink Central has participated in similar systems in his work. He explains some of the value to him was a huge amount of learning and that "only through sharing could we trigger some of the possible collaborations".

In the United Kingdom, some local governments have experimented with a model of Participatory Budgeting. Learn more at http://www.participatorybudgeting.org.uk.

The BIG Lottery (http://www.biglotteryfund.org.uk) has also experimented with popular voting.

In the United States, The Case Foundation (http://www.casefoundation.org) have been researching participatory giving since 2007 through their Make It Your Own Awards (http://www.casefoundation.org/projects/make-it-your-own-awards) and America's Giving Challenge (http://www.casefoundation.org/projects/giving-challenge). This work has taken full advantage of the power of digital tools to involve large numbers of people.

A model of peer review has been used in academic publication and funding for generations and is in practice around the world. The practice and guidance for the Make:IT:Happen Fund peer review system was made in reference to the best practice published by the European Science Foundation European Peer Review Guide (2011) ()http://www.esf.org/index.php?eID=tx_nawsecuredl&u=0&file=fileadmin/be_user/research_areas/CSSD/SEFP8_Docs/MO_Fora/European_Peer_Review_Guide.pdf&t=1335006512&hash=6073a1140b2481ac5be8cf412e6a776158c865ba).[91] –

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[91] AHRC 2012, http://www.ahrc.ac.uk/about/PeerReview/Pages/default.aspx accessed 20/4/12

13. What if my idea for the Digital Content Development Fund is confidential or contains trade secrets which I don't want to share with a peer review panel?

The Make:IT:Happen Fund is committed to an ethic of openness and transparency. The Digital Content Development Fund is designed in this spirit. The MAKE:IT:HAPPEN Fund will require that information acquired while participating in the peer review panel be treated as confidential. In addition, applications will be anonymised before they are shared. If however you feel that you are not willing to submit information to a peer review process we recommend applying to one of the other funding streams.

14. I'm happy to be involved in the peer review process but what do I do if I feel I don't necessarily have the expertise to judge a particular digital content development application?

No one knows everything about new technologies! We think, though, that if you've been thinking about and researching the possibilities of digital development for yourself that you will be able to bring that information to bear on your peers' ideas. If something really sparks your imagination it may be worth learning more about it. That's the positive thing about the process – the opportunity to learn from others and being inspired!

15. Participating in the peer review process seems quite time intensive. Why should I give up my time to take part in it?

AmbITion Scotland respects that everyone has very limited time. We have devised our application form to be as short (both to complete and to read) and purposeful as possible. We have also devised the assessment criteria to include only the most

essential and relevant criteria to support the decision-making process. The peer review process was designed to build equity in the funding process, demonstrate

the range of excellent projects undertaken in the sector and make the process of disbursing funds more open and transparent.

AmbITion Scotland intends that participating in the peer review process will help applicants understand why investment allocations were made as they will have been exposed to the full range and quality of competing proposals. Our aim is that it will spark people's imagination and interest in greater collaboration. Moreover, peer review is the first step in the

process which also includes involvement in the online AmbITion Scotland Ex:change (link)

16. I'd like to apply to the Digital Content Development Programme but I'm concerned about the demand on my time from the peer review process. Could you give me an idea of how many applications I may be expected to peer review?

We expect that applications will be divided up into groups of between 6 – 10 applications. In the event of a two tiered process of assessment, only those organisations that are still in the running will be asked to continue reviewing applications. We respect that there are tremendous pressures on everyone's time. AmbITion Scotland has intentionally kept the application form short and sharp so that you will only be reading (and submitting) the most essential information. Similarly the assessment forms are targeted and designed to be very straightforward to use.

Are there plans to extend the Make:IT:Happen Fund after 2013?

Not at this time. AmbITion Scotland is a two-year fixed term project and the final projects to receive funding from the Make:IT:Happen Fund will need to report by 28 February 2014

Who do I go to for help in the application process?

If you have any questions about Ambition Scotland or the Make:IT: Happen fund you can contact the AmbITion Scotland team – Ashley Smith Hammond, AmbITion Scotland Project Manager: ashley@getambition.com and/or Ela Zych-Watson, AmbITion Scotland Project Administrator: ela@culturesparks.co.uk on 0141 248 6864.

Assessment and Decision Making Guidelines

Assessing Make:IT:Happen Applications & Decision-Making

How the awards for each of the categories will be decided

Applications with be assessed either by our **Selected Panel** or through **Peer Review**.

AmbITion Approach   Selected <u>Panel</u>

Digital Content Development   <u>Peer Review</u>

Organisational Development   Selected <u>Panel</u>

Sustainable AmbITion   Selected <u>Panel</u>

Selected Panel

Applications will be judged by a panel of individuals who have a wide range of expertise in digital developments within the arts, culture and heritage sector and will draw on the experience of individuals and advisors who have been instrumental to AmbITion Scotland's success since 2009.

Peer Review

AmbITion Scotland is trialling a participatory **<u>Peer Review</u>** method of decision making as part of the **Digital Content Development** fund.

(Please see page x for more details).

Read on to find out more about the specific guidelines for each of the four digital funds, how to apply and who to contact if you have any questions.

AmbITion Approach Fund

up to £5,000

The Ambition Approach fund supports organisations that are relative newcomers to digital technology by providing an external specialist to help them develop a wide-reaching strategy for organisational change. The aim of the *AmbITion Approach* fund is to help your organisation by:

Boosting confidence through building digital knowledge and skills

Improving your capability to consider artistic digital developments

Enhancing in-house capacity so that you can start or continue the journey of digital development

Increasing adaptability to market demands and the behavioural trends of audiences and visitors

Increasing operational efficiency taking a fresh look at digital systems and structures

Improving resilience by interrogating business strategies and building new business models

What's involved?
The Ambition Approach fund will support your organisation to bring in expertise to evaluate your systems and processes with an objective, strategic eye* and help to develop a positive strategy for organisational change across a range of areas. These could include enhancing your team's digital skills, operations and infrastructure, as well as your business model and creative practices. Applicants should be ready to commit time to undertake a digital/technological audit before developing a bespoke business case and critical path for implementation.

Assessment
Applications will be assessed by a selected panel. The panel will be looking for evidence of your commitment to this process across all areas of the company, especially from senior management and Board level. You should demonstrate in your application how and who in your organisation will manage the project from start to finish.

Application Tip

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[92] And see online guidelines http://getambition.com/support/make-it-happen/ambition-approach-fund/ accessed 19th July 2013

For extra advice and assistance in making your application, we recommend that you take a look at The AmbITion Approach online tool kit to see what is involved.

Application Deadlines
2 September 2012
2 December 2012
3 March 2013
2 June 2013
1 September 2013

*AmbITion Scotland has brokered relationships with a pool of external specialist advisors who are experienced in supporting organisations through a process of change and the use of digital technologies. Applicants will be matched with an advisor in consultation with the AmbITion Scotland team. The final choice will rest with the organisation.

Appendix 12: AmbITion Approach Fund assessment criteria

AmbITion Approach **Fund assessment criteria**

Scoring area	Possible	Awarded
Meets the overall **aim of the fund** - to support business and operational development in the arts, cultural and heritage non-profit sector through strategic digital development, and to build resilience and capacity in the sector.	10	
Meets the **objectives of the fund** • To enable organisations to create new revenue streams or operational cost or carbon efficiencies through digital tools • To empower organisations to try out new methods of engagement with audiences/participants/visitors and widen their reach • To encourage the creation and exploitation of new digital content in support of those ends	10	
Strong potential to meet the **aim of the AmbITion Approach programme** - increasing organisations': • Confidence, by building digital knowledge & skills • Capability to consider artistic digital developments • In-house capacity, to continue the journey of digital development • Adaptability to market demands and audiences' behavioural trends	20	

• Operational efficiency, by looking at systems and structures • Resilience, by interrogating business strategies and building new business models		
Merit of the proposal Originality. Applicability. Relevance.	15	
Evidence Has a strong case been made? Is there any research to support the proposal?	15	
Pragmatic Is it deliverable within budget? Do the timescales seem reasonable?	10	
Capacity Has the organisation shown that it has the internal capacity to manage the change process?	10	
Readiness Has the organisation shown that they are ready to undertake a committed journey of digital and operational development? Is there strong senior management and board support?	10	
Total	**100**	

Assessment guidelines and process for panellists

1. Each application in this funding programme will have its own sheet within this Excel workbook. You'll find them in tabs across the bottom left of the window.

2. Type in the name of the assessor and the date assessed in the space provided at the end of the scoring sheet – this will serve as your digital signature.

3. Once you have assessed all of the applications in your pack, please return your assessment sheets via email attachment to ela@culturesparks.co.uk Ela Zych-Watson, AmbITion Scotland Administrator by the agreed date.

4. You can only assess based on the information that you have been given. If you find a particular area difficult to assess because of lack of information score it accordingly low and give feedback in the comments section that it was missing.

5. As much as possible, try to assess the idea rather than the presentation of the idea (i.e. there's no need to take marks off for spelling mistakes or a misplaced comma).

6. Feedback needs to explain the scores you give, both high and low. The applicants need to know why they were (or were not) selected. The AmbITion Scotland team need to understand as well in order to feed this back to the applicants regarding the outcome of their applications. Just a reminder, please give the kind of feedback that you would like to receive yourself.

Example agenda for panel meeting (decision making meeting)

Agenda: 17 July 2013

AmbITion Scotland Make:IT:Happen Fund Panel Meeting

Location:	**Culture Sparks Office**
Time:	**10-14.30**
Chair:	Ashley Smith Hammond (Culture Sparks)
Attendees:	Julie Tait (Culture Sparks), Chris Elvery (Call 2 Action), Lesley Anne Rose (Stellar Quines), Louise Mather (No Middle Name Creative)
Scribe:	Ela Zych-Watson (Culture Sparks)

5 mins	FOR INFORMATION	Welcome [JT]
5 mins	FOR INFORMATION	Make:IT:Happen Fund process [ASH]
5 mins	FOR INFORMATION	Summary of report from Hannah Rudman [ASH]
[10.15 am] 60 mins	DISCUSSION & DECISION	AmbITion Approach [ALL] • Top applicants by scores • Discussion • Decision
[11.15 am] 120 mins	DISCUSSION & DECISION	Organisational Development [ALL] • Top applicants by scores • Discussion • Decision LAR – no votes/scores on Lung Ha & FCT LM – no votes/scores on NYOS CE – no votes/scores on EISF, Streetlevel
30 mins	BREAK	Working lunch
5 mins	FOR INFORMATION	Summary of report from Edinburgh Centre for Carbon Innovation [ASH]
[13.50 pm] 30 mins	DISCUSSION & DECISION	Sustainable AmbITion [ALL] • Top applicants by scores • Discussion • Decision
5 mins	FOR INFORMATION	Next steps and close [ASH]

Tabled papers

• Report to the panel from Hannah Rudman, Lead Consultant for AmbITion Scotland

• Report to the panel from Jim Hart, Business Manager at Edinburgh Centre for Carbon Innovation

- Summary of scores and amounts requested over the three funding areas, AmbITion Approach, Organisational Development and Sustainable AmbITion

Example award offer letter for successful organisations

Culture Sparks
Suite 1/1, 6 Dixon Street, Glasgow G1 4AX
T : +44 (0)141 248 6864
M : +44 (0)774 777 0018
E : enquiries@culturesparks.co.uk
W : www.culturesparks.co.uk

The intelligence and innovation partnership for the cultural sector

Amb:IT:ion
scotland

CULTURE SPARKS:
Igniting intelligence
and innovation

Name
Title
Company
sent via email to:

30 October 2012

Dear (insert name – handwritten for informal letters)

Dear

Ref: **Make:IT:Happen fund award**

Many thanks for your application to the Make:IT:Happen fund. I am delighted to say that your application has been successful. The Make:IT:Happen fund panellists / peer reviewers have recommended a grant of £_____.

We want you to know why your application was selected, and thought it would be helpful to share a summary of the feedback from the panel / peer reviewers regarding your application. This feedback includes information about any grant conditions that were recommended – what they are and why they were applied.

Feedback

<insert feedback>

Ex:change

You will need to sign up to the Ex:change on www.getambition.com to share your project with the wider network. The Ex:change Directory is an online marketplace where you can publicise the digital expertise and technology skills of your organisation as well as list those digital areas in which your organisation needs help.

This requirement is based on what we learned from delivering AmbITion Scotland 2010-11. Last time, funded organisations were very keen to know who else had received funding and what types of projects they were working on. We want to facilitate peer-to-peer learning as much as possible and have created the Ex:change space in order to meet this need. We will supplement this online networking with a series of in-person networking events for Make:IT:Happen funded organisations.

PR

We recognise that you will be excited about your success and want to tell the world right away. However, AmbITion Scotland's first round of the Make:IT:Happen funding decisions will be made public from tomorrow Wednesday 31st October 2012.

In the meantime, we ask for your kind co-operation in maintaining confidentiality across public platforms including press releases and social media channels, about your successful application until that time.

We are currently preparing a press release and will share this with you so that you can edit for use within your own promotional materials. If you do issue a press release please share it with us and include the following credit line:

> The project is funded by a Make:IT:Happen fund award from AmbITion Scotland disbursing devolved National Lottery funds from Creative Scotland.

Contracts

We will be sending you a formal offer letter including our funding conditions and guidelines for crediting AmbITion Scotland's support. The latter will also be available to download from our website www.getambition.com. Please be on the lookout for this letter and get the signed contract back to us as soon as possible. A final report pro-forma and rich media case study guidelines will shortly be available and you will receive this in due course.

Reapplying to the Make:IT:Happen fund

AmbITion Scotland's Make:IT:Happen funding is available on a rolling basis. Whether or not you were successful this round, you can reapply. The feedback process was designed to be helpful to you if you do apply again. We hope this process has been valuable.

Please do continue to stay involved with the AmbITion Scotland programme and the wider community.

Yours sincerely

Ashley Smith Hammond
AmbITion Scotland Project Manager
Culture Sparks

http://www.getambition.

Example offer letter and contract for successful organisations

Culture Sparks
Suite 1/1, 6 Dixon Street, Glasgow G1 4AX
T : +44 (0)141 248 6864
M : +44 (0)774 777 0018
E : enquiries@culturesparks.co.uk
W : www.culturesparks.co.uk

The intelligence and innovation partnership for the cultural sector

Amb:IT:ion
scotland

CULTURE SPARKS
Igniting intelligence
and innovation

Name
Title
Company
sent via email to:

30 October 2012

Dear

Ref: Make:IT:Happen fund application

Many thanks for your application to the Make:IT:Happen fund. On this occasion, unfortunately, your application has been unsuccessful. We want you to not just know the outcome but understand what underpins this decision. As you will imagine / know from the peer review process, the competition was strong. The panellists / reviewers were generous with their comments, however, and the following is a summary of what they fed back about your application.

Feedback

<insert feedback>

The feedback process was designed to be helpful to you if you do apply again. We hope this process has been valuable. I am available to discuss the feedback with you further if you should wish. Feel free to phone me on 0141 248 6864.

We look forward to you continuing to stay involved with the AmbITion Scotland programme and the wider community.

Yours sincerely

Ashley Smith Hammond
AmbITion Scotland Project Manager
Culture Sparks

Appendix 13: The history of *The AmbITion Approach*

Context

The genesis of *The AmbITion Approach* lay within a substantial body of development work and research carried out by individuals and organisations involved in both the arts, and the digital revolution between 2000-2006. The 2006 audit of Arts Council England's North West Regularly Funded Organisations' use of IT and digital content, commissioned by Arts Council England, highlighted a consensus of ambition to develop technology use. It simultaneously revealed a lack of knowledge, effective planning and capacity (Morris Hargreaves McIntyre and Arts Magnet, 2006). Similar findings from *London Calling*, a cultural sector development agency, that additionally undertook an audit of the London region, suggested this was a national picture (London Calling Arts, 2006). Those shaping AmbITion originally recognised that arts organisations lagged behind the leisure sector in utilising digital technologies, and that there was a deficit of relevant best practice case studies and 'digital leadership' in the arts.

A change management framework that supported cultural sector organisations transition from analogue to digital was required. *Thrive!* which was an Arts Council England funding pot opened in 2006/7, offered a coherent practical mechanism to respond to the findings of the research ((Morris Hargreaves McIntyre and Arts Magnet, 2006) and (London Calling Arts, 2006)).

In application documentation to *Thrive!*, the author/researcher suggested a:

> "pilot support programme to enable arts organisations to integrate effective use of digital technologies across all areas of their business and artistic practice, improving their offer and competitiveness in a 21st Century market".[93]

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[93] 'AmbITion: IT and Digital Content capacity development for the arts sector – a national pilot'. Application documentation to Arts Council England, 2007.

The project had two main aims. First, through the provision of expertise and support to target arts organisations, it aimed to achieve digital change management (to integrate the effective use of digital technologies in all areas of business and artistic practice in these organisations). Second, it aimed to develop and implement a national knowledge base (then defined as a portal) to facilitate knowledge transfer and to provide examples of best practice for the participating organisations and across the arts sector nationally - through case studies.

The initial AmbITion pilot was funded by *Thrive!* between 2007-2009 with £1.5 million of Arts Council England National Lottery money). Rudman Consulting ran the programme in partnership with Manchester Digital Development Agency.

AmbITion: the pilot programme 2007-2009

AmbITion was initially a learning and change programme in two English regions, with fifteen participating arts organisations of various art forms, scale and operational model. AmbITion launched as a pilot programme in 2007, working directly with 15 arts organisations selected from the North West and East regions of England. Seven of these were involved in an in-depth two-year process of change (named Tier 1). The remainder (named Tier 2) received the opportunity to benefit from a diagnostic session, and some centrally delivered training, and networking. As many arts organisations nationally were developing work in this area, the knowledge base was available to the whole sector from its inception via an online website, with the potential for any organisation anywhere to participate with the online offer (Tier 3).

All organisations, through engagement with AmbITion and depending on artform and size, addressed the following:

- business and development models that focus on ICT, including e-commerce

- content development and distribution using digital channels
- customer management systems, including data capture
- artistic collaborations
- education materials
- marketing and customer relationship management
- audience development and taking part: engagement, interaction, including personalisation agenda and audience as creator/curator

The AmbITion change management process was initially delivered in four phases and defined thus:

A **preliminary diagnostic**: to audit current IT and digital content use and capacity, identify potential areas for development then consider the benefits, costs, risks and impact on operations and staff

Output: a coherent business case for digital technology driven change

Workplan and contract development: change programme decided upon, timetabled and costed in detail.

Output: financial allocation.

Implementation: each participant organisation project managed the agreed change programme, supported by AmbITion's consultants, service providers, and central team. Networks and action learning sets were set up to encourage peer learning and support - any interested organisation could also benefit from this.

Output: completion of the change programme.

Final evaluation and dissemination of findings: the evaluation process was to be continuous from the initial diagnostic to the final evaluation measuring the impact of the changes.

Output: case studies (shared via the web, and a national AmbITion conference which would tour the country).

Evaluation of AmbITion: the pilot programme 2007-2009

During the development of *Arts Magnet*, a steering group had been set up to include all delivery agents, and all participants. This worked well as a feedback mechanism, and a co-operative collaborative decision making group. However, as AmbITion was to be executed across two regions of England that were geographically remote from each other, the feedback mechanism of a co-operative steering group was not going to be adequate.

A priority for the evaluation activity conducted therefore was to achieve the best standards of academic research and evaluation. Although not funded directly by the research councils, the work was to be evaluated and assessed at the level expected by the Engineering and Physical Sciences Research Council (EPSRC). The assessment process incorporated the usual audit requirements of Arts Council England funding, but additionally an ethnographic evaluation of the programme was commissioned from Cambridge University so that the programme's model, processes, and priorities could be iteratively improved with independent and critical feedback from participating organisations and from independent researchers:

> Our purpose is to ascertain the degree to which the stakeholders feel that the stated aims of the AmbITion programme are being met, and whether these aims map onto the perceived value of the project to end users. The basic premise underpinning our research is that organisations are not merely composed of structures in which individuals are suspended, but are assemblages of embodied, often tacit knowledge practices. Thus 'organisational change' often requires not only a shift in the relationships of the members of an organisation or the introduction of new technologies, but a negotiation of the tensions between the old and new knowledge practices that these shifts engender. (Wilson et al., 2007)

The programme, designed as a pilot with a number of delivery agents and engaging with 15 different cultural sector organisations, needed to gather feedback and data about whether the processes and priorities met the expectations and self-defined needs of the participants.

The project team agreed that external researchers should adopt a critical approach, which took a lead from action research and anthropology. The evaluation was to be based on an ethnographic case study approach, providing analysis relating to the sequence of events through which the implementation of digital technologies within the participating arts organisations took place. (*Arts Magnet's* evaluation revealed that case studies were received well by cultural organisations: they told a story and presented best practice without being instructional, or passing judgement on those not yet implementing new practices).

Qualitative ethnographic data collection methodologies employed in the elicitation of evaluation data for AmbITion included:

- participant observation,
- semi- structured interviews via face-to-face, telephone and email exchanges, and
- critical readings of relevant literature, policy and other documents.

Conclusions and lessons from the AmbITion pilot programme and prototype change management model

The output of the evaluation of the pilot programme was a final report. This was preceded by two interim studies, which reported organisations' progress as case studies, as well as providing insight for the project team on the participants' perceptions of AmbITion. The interim reports helped:

- tweak the project structure according to feedback (eliminating the nomenclature of "Tiers");
- shape communications to address expressed dissatisfactions (with funders' timelines, around lack of live networking opportunities, around the tension of commerce versus creativity); and
- add in elements that participants wanted (live and online social engagement activities and digital skills development and training).

The interim reports were considered private, and were shared with the project team and participants only ((Wilson et al., 2007) and (Wilson and Leitner, 2008)). Often, they revealed social and organisational realities as the cause of problems. This was where it was hoped that the ethnographic approach to the evaluation could assist the shaping and bettering of an organisational development programme with a digital focus. The ethnographic enquiry methods more readily revealed personal and political tensions as participants were observed and encouraged to report what was happening "on the ground". The intricacies of how people felt about the impacts of digital developments on their organisations and themselves needed to be communicated back to the project team, as well as what worked and did not pragmatically.

Additionally, assumptions about what would work as a change process for digital development needed to be challenged - the change methodology in the first phase of the AmbITion programme was being piloted, and so an investigative strategy that would encourage iterative and constant improvement was required. It was achieved through analysis of data derived from the ethnographic approach. As the Cambridge University researchers Leitner and Wilson state in their final report:

> "In this respect, the management team made a brave decision to allow social scientists free rein to comment on and critique the project as it unfolded. Such a critical approach to project evaluation is unique in the arts sector. Moreover, it is a rare occasion when any publicly funded project might lay itself bare to such scrutiny." (Leitner and Wilson, 2009)

A final evaluation report reflecting on the pilot programme as a whole was published publicly, in 2009. It praised the achievements of the pilot:

> "We believe there are lessons to be gleaned from the AmbITion project that are more widely applicable to the arts sector as a whole… As a model of an innovative change management initiative, the AmbITion project has been a success on a number of levels. The lessons learnt about the importance of social networking and the limitations of technology, the use of qualitative formative evaluation methodologies, the need for a flexible and, critically, responsive project management team and structure, the subsequent socialisation programme that has broadened the impact of the

project across the arts sector, are just some of the elements of the project of which similar interventions would do well to take note." (Leitner and Wilson, 2009)

In terms of the change impact on the participating organisations, the evaluators concluded:

> "Every organisation we observed made significant strides with regard to both the uptake and the innovative use of new media and digital technologies. Several went beyond their business cases and improvised new ways to exploit these resources in the interest of fulfilling their educational and artistic and caused organisation-wide step changes and improvements for the specific businesses involved missions, as well as improving their   business and marketing practices." (Wilson and Leitner, 2008) .

That AmbITion did not continue in England post-pilot was due to the disruption of the financial crash of 2008. AmbITion had originally been intended for national roll out, but Arts Council England's funding priorities changed dramatically as it was put under pressure by DCMS to shrink its budget by 40%, and organisational and business development programmes were cut.

The overall reflections from the AmbITion pilot programme evaluation were:
- It is not all about the technology;
    - Technologies only work if people make them work.
    - Knowledge sharing is a social process and works through social relations.
    - 'Virtual' interactions with other people can enhance 'real' ones.
    - Technologies are specialised tools, not panaceas. There is no one-size-fits-all solution.
    - Day-to-day personal interactions are important to many people's work. Preserving this in the face of digital change is important.
- Consultants are worth their salt;
    - Consultants play a vital role in helping the organisations reflect on digital technologies and business practices.

- Personalities as well as expertise should be considered when matching the consultants to organisations.
- Consultants can have a ground-level perspective on the operations of the organisation.
- People's personal relations on the ground are crucial to how the organisation will react to change.
- People are important;
  - People's time is valuable. Give them a reason to interact. Understand what they want out of it.
  - There is no 'field of dreams'. People need a reason to network. It's not enough to build it and hope they'll come.
  - Networks aren't made of whole cloth. Draw on 'real-world' networks to initiate online ones. (Leitner and Wilson, 2009)

The AmbITion Scotland Programme 2009-11

The *Get Digital* research report (Tomlinson and Rudman, 2008) commissioned by the Scottish Arts Council in 2008,[94] suggested Scotland's audiences, cultural organisations, and the Scottish Arts Council itself, needed a national intervention to ensure the Scottish cultural sector made the most of the opportunities of digital development. Over 2008, the Scottish Arts Council followed the progress of the AmbITion programme in England, considering whether it might be an appropriate intervention for Scotland.

An adapted version of the initial AmbITion programme prototype was commissioned, designed, and rolled out nationally for Scotland in 2009. It was funded with £1.1 million of National Lottery money via Creative Scotland (the Scottish Arts Council and Scottish Screen were merged into the new body Creative Scotland in 2008). It was co-delivered by Rudman Consulting and Culture Sparks, a Scotland based cultural audience development agency.

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[94] This research report was confidential for client's eyes only

The AmbITion Approach was coined as a term during the first Scottish programme, developing the ad hoc prototype organisational change management and learning model into a formally defined model, written up and published online. This section outlines the context of the first Scottish programme that *The AmbITion Approach* was formalised within; explains the development of *The AmbITion Approach* model during this phase 2009-11; and gives an overview of the evaluation of this phase of development.

Context

The AmbITion Scotland programme 2009-2011 had two strategic objectives (i) to promote a creative environment through digital development; and (ii) to create a supportive environment for digital development - enabling wider access to a specialist knowledge base. It was envisioned that by fully engaging with AmbITion Scotland, arts and cultural organisations would build their own knowledge, access specialist support networks, and develop methods to engage new and more loyal audiences and plan for growth.

AmbITion Scotland aimed to encourage the leadership and staff within the arts and cultural sector to develop the use of digital technologies, enhancing an organisation's own technical abilities and capacity by harnessing the benefits of knowledge and best practice in this area. AmbITion Scotland was designed to bring together: arts practitioners and researchers, leading thinkers, and business and digital experts throughout the programme. It set out to consider creativity, artistic vision, business model development, audience development, and organisational development in light of digital technologies; and to support arts and culture businesses to use digital technologies to adapt to the changes of disruptive technologies. The programme was designed to draw on the past experience and significant repository of best practice case studies resulting from the AmbITion England pilot project, and to offer participation in a widespread programme of professional development events and seminars. These were aimed

at facilitating knowledge transfer amongst Scottish organisations, - locally and nationally - and intended to create a professional support networks to last long after the programme ended.

It was hoped to achieved the desired outcome of increased organisational effectiveness in arts organisations through effecting the following goals:

- significantly raised technology capability and integrated ICT implementation;

- changed working practices, job roles and organisational / operational structures following the implementation of digital development;

- efficient, integrated, digitally-based customer relationship management systems; ticketing systems; websites; fundraising and other databases; and

- trained staff, 'digitally literate' boards, and skilled senior management teams in the implementation of new technologies, business and artistic practices.

- It was hoped to achieve improved levels of public engagement with the arts through goals focussed on organisations' relationships with audiences:

- organisations acquiring better knowledge about existing audiences;

- organisations developing more attractive content that potential audiences can easily find;

- organisations being enabled to provide equitable access to content for anyone with a connection to the Internet, including those with mobility, hearing and sight impairments; and

- audiences being able to participate and communicate with arts organisations effectively and deeply online.[95]

The programme ran from autumn 2009 until autumn 2011, and consisted of:

- 15 Partner organisations (which were granted funding of up to £50,000 each from Creative Scotland, subject to cohesive business cases, and which received 5 days business case development consultancy);

- 40 Associate organisations (which received 1 day of consultancy to complete a digital audit); and

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[95] From confidential AmbITion Scotland 2009-11 proposal documentation to Creative Scotland by Rudman Consulting & Culture Sparks.

- a series of supporting events, workshops, web casts and online resources, in which over 750 organisations and over 1800 individuals participated.

The AmbITion Approach was to encourage adaptation, not just assimilation. The ideal environment therefore for undertaking *The AmbITion Approach* is amidst a wider programme. Knowledge exchange, networking, and sharing, practical and applied learning, risk taking, and the sharing of practices as they emerge can be pooled by a programme. The collective knowledge and confidence of the whole sector then grows and potentially can achieve sectoral adaptation.

The rapid cyclical nature of the approach allowed for prototyping and failure. Organisational change management consultants (called Specialist Advisors within the 2009-11 programme) that worked with Partner and Associate organisations were trained in *The AmbITion Approach* at live training sessions.

Additionally, it was published online as a series of webpages and associated resources, that could be easily navigated step-by-step for those wanting to guide themselves through the process at microsite http://toolkit.getambition.com (see figure 13.1, below).[96] This ensured *The AmbITion Approach* could be undertaken as a self-directed change journey outwith the existence of a wider, live programme - a self-help model. The online resources, case studies, and network from past and current live programmes act as a supportive virtual "programme" for any organisation to engage with, anytime, anywhere.

The output was an implemented, overarching digital strategy that is confluent with the vision, mission and strategic purpose of the organisation, and congruent with its existing assets.

Figure 13.1 *The AmbITion Approach* as a self-directed change journey online (screenshot, 2011)

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[96] Historical website address, this now developed at http://getambition.com/learn

The AmbITion Toolkit

Amb:IT:ion

The AmbITion Toolkit: Our Approach and Methodology

Home   About   Glossary   Toolkit Resources   getambition.com

Our Approach

Home › Get AmbITion!

1 Getting Started
2 AmbITion Methodology

Get AmbITion!

AmbITion Methodology

Audit your organisation
Diagnose your needs
Develop your business case
Manage your implementation
Reflect and Evaluate
Getting Started

toolkit.
getambition.com

Welcome to the AmbITion approach to digital development for the arts. This is an online toolkit that has been specifically designed for an arts organisation to develop themselves digitally. Through an easy to follow step-by-step approach, supported by a wide range of templates, tips and resources, your organisation can now approach digital development with confidence.

Each section was also available as a downloadable pdf document, the most read document version being "Develop Your Business Case" (see download and read statistics below in Figure 13.2):

Figure 13.2 *The AmbITion Approach* online statistics (screenshot, 2011)

The separation of the approach into clear sections (and visualised by a diagram) helped organisations recognise where they were at with the process, and gave consultants a consistent language and structure through which to facilitate all organisations' digital development journeys.

The 'Audit Your Organisation' and 'Diagnose Your Needs' and 'Develop Your Business Case' sections of *The AmbITion Approach* guided the planning phase. Opportunities to receive funding and bespoke support on AmbITion Scotland 2009-11 demanded that any applicant prepared a business case: the programme provided all the tools and resources and support that an organisation would need to get the point of having done the thinking and planning and being able to produce the business case document.

The 'Manage Your Implementation' section ensured that awardees used the funds wisely to fulfil the implementation plans of the business case by spending time creating and embedding the digital development successfully. At this stage, tweaks to the business case and plans could be made.

The 'Reflect and Evaluate' section of *The AmbITion Approach* guided reflective activity. Once implementation was complete, the organisation was encouraged to evaluate their digital development journey, often through the format of creating a report or presentation that highlighted their achievements (or failures) and learnings for internal distribution.

Evaluation of AmbITion Scotland 2009-11

An ethnographic evaluation of the first Scottish programme was considered too expensive and impractical due to the geographic challenges of a national programme in Scotland. However, constant evaluation and evaluation at midpoint in the programme allowed the team to receive feedback and make iterative improvements. Culture Sparks' research facility undertook the evaluation of AmbITion Scotland 2009-11 (a separate department to Culture Sparks' AmbITion project team, not involved in the delivery of the programme). The objectives of the evaluation were to:

- gather feedback and input from programme participants in the approach of 'action research', to assist with the refinement, development and execution (especially at the beginning and mid-point) of the programme to maximise the opportunity for organisations to obtain the full potential benefit from the programme;

- gather feedback from participants who attended the open sessions, events and activities – identifying the level of relevance and interest of the session; and

- measure perceptions of the participants related to achievement the stated programme objectives (at the end of the programme).

Additionally, feedback was also gathered from the Specialist Advisors (consultants), and the AmbITion Scotland team, to include any insight and comments they wished to make in relation to the outcomes of the programme, and any learning for the future. A combination of qualitative and quantitative methods were used, including:

- individual qualitative depth interviews with organisations prior to the programme commencing;

- qualitative group discussions with organisations at the mid-point;

- post event, online evaluations (for each individual event);

- web analytics to provide statistical information on the interaction and use of digitally based communication activity; and

- end of programme quantitative surveys with Partners, Associates and Specialist Advisors to create the maximum opportunity for feedback from every organisation who participated. As the technology capability in each organisation increased during the programme, there was an increased use of technology based research techniques.

In addition, the video case studies featured online that illustrated the 'learning journey' of participants' developments were also considered.[97]

The Culture Sparks staff members who conducted the evaluation research were not involved in the delivery of the AmbITion Scotland programme, and provided an independent perspective except that they did benefit from a close understanding of the programme from colleagues.

The 120+ page evaluation report was full of quantitative data of opinions and perceptions presented visually as graphs, tables and pie charts. Open-ended queries and focus groups gathered rich qualitative data such as anonymised quotes. Being able to collect data via digitally created and hosted questionnaires ensured a high response rate to evaluation investigations and eliminated geographical restrictions. Evaluation queries were pushed to AmbITion Scotland programme users by email lists, using MailChimp e-newsletter software, online AmbITion Scotland forums, and online event organising tools such as eventbrite.com, as well as social media platforms such as Facebook Pages and Twitter. 100% of the team, 50% of participants and 50% of specialist advisors engaged in evaluation activities: a robust sample.

Rather than having a team of external academics to gather and assimilate this data and summarise it back, Culture Sparks was able to analyse data immediately and feed it back to the AmbITion Scotland programme team to respond to and make

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[97] From confidential AmbITion Scotland 2009-11 Evaluation proposal documentation to Creative Scotland by Culture Sparks.

programme changes - as the data arrived. The 2009-11 programme was able to successfully use online and social media platforms for evaluation because they had developed as the main communication channels for the programme.

Evaluation conclusions

The evaluation report concludes:

> "both of [the programme's original] objectives have been successfully achieved. This was particularly the case for Partners, and to a lesser degree with Associates (as could be anticipated). In addition the open events clearly engaged effectively with a broad range and high number of arts and cultural organisations in Scotland. While there was perhaps more focus by the participants on this programme on the basics - organisational and infrastructural aspects- this successful digital development enables the possibility of increased creativity via digital tools and channels. With the critical mass and collective knowledge of the sector improved, the potential for increased digital creative collaborations and innovations can be realised... There is clear evidence that the programme has resulted in the desired outcomes, to varying extents across Partners, Associates (in line with their individual project objectives) and the across wider arts and cultural sector throughout Scotland." (Culture Sparks, 2011)

The lessons learnt about the processes and programme 2009-11 were:

A number of organisations were frustrated and disappointed to have missed the opportunity to participate fully and receive funding as Partners. This applied to many Associates and a number of organisations who just attended the events. The awareness and fairness issues could be addressed by:

- an increase in marketing activity at the beginning of a programme;
- a 'rolling' process of applications across a longer time period to increase the reach and so organisations could apply at the time appropriate to their organisational development, without a 'single' deadline for a limited competition;
- the application process should be rigorous, and linked to the aims of Creative Scotland's Cultural Economy programme, but the process should

be simpler for applicants. A 'light touch' support process would be beneficial in generating ideas, refining thoughts prior to application; and

- the variation in participation level (Partners up to £50,000 / 5 days consultancy – Associates no funding / 1 day consultancy), could be bridged with greater flexibility in the size / scope and funding level of individual projects.

- Other issues included:
- some organisations found the skills of their appointed Specialist Advisor did not turn out to be an ideal fit;
- capacity (internally within organisations) and capability around digital knowledge and skills appear weak in many organisations;
- Cross-sector working can be highly effective, although bridges are required to be built by development organisations;
- the 'ning' platform (online social network) was not as effective as desired as a networking and communication tool across participants and Specialist Advisors and it became less effective as the programme progressed. Other networking tools which offer greater integration with online content and social media channels should be considered;
- there was a desire from many participants to increase the extent of collaborate across different arts organisations. A forum to facilitate this demand should be considered; and
- due in part to the self determined focus on IT infrastructure, digital communication issues (including ticketing systems, web sites and social media activity) and Customer Relationship Management, there was less emphasis in relation to creative development / creative outputs with digital resources.

In relation to the use of *The AmbITion Approach*, of those who had to create a Business Case in support of their application (26 organisations), a substantial proportion – around a third (9 organisations)- found this to be difficult (quite or

very). This was balanced by a similar number (10 individuals) who found the process 'Quite Easy'.

Ease of producing a Business Case
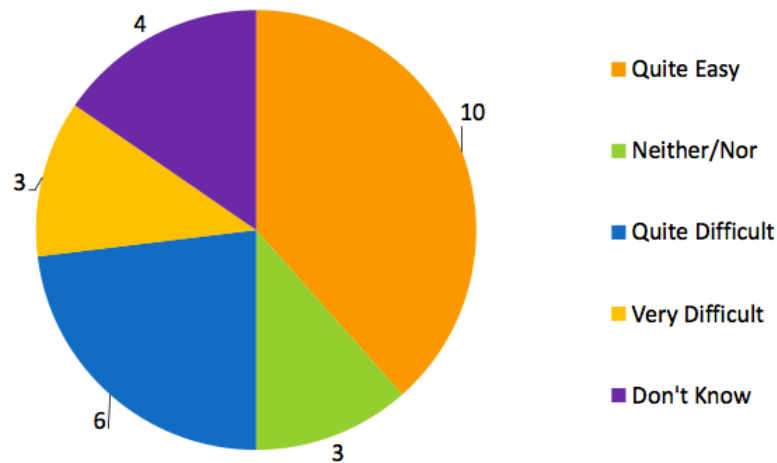
Base 26 Partners / Associates

Those individuals who indicated they considered it to be difficult were asked to identify "how this could have been made easier"? The following comments were made -

> "Creating a Business Case is very time consuming, especially for a small company such as ours with very limited resources (3 staff, 2 of whom work part-time). We could have definitely done with more time. Also, we were trying to create a business case for what is essentially an experimental project. As a result a lot of what we were proposing was always likely to change, or have limited initial evidence to support possible outcomes, ROI etc. At times I felt there was a bit of a mismatch between our aspiration, AmbITion and plans for the project and the formal Business Case structure we were being asked to respond within. A simplified business case format with an emphasis on the research and development side would have been welcomed. Also, we had a good relationship with our consultant who was extremely helpful when it came to putting the Business Case together - reading, suggesting changes, providing advice etc. If this had not been the case I think we would have struggled to make it as solid as it was" (Partner).

> "I think the greatest difficulty was the deadline, and the feeling that we needed more time. I realise that this made us focus, but some elements might have been thought out more thoroughly. Working with a consultant was very useful - but this did make the process necessarily longer due to the need to meet/correspond/plan

with them, and turning the whole business Case around in the timeframe was tricky." (Partner).

" Not sure this why I answered quite difficult. My comment is more relation to the fact that making a good business case is something that isn't easy - and in a way never should be" (Partner).

"I think it was difficult because the organisation wasn't fully aware of the areas for development until the work began with our advisor - which began the process of really examining the organisation as a whole. It was difficult in how time consuming it was to complete the research and articulate this - but I don't think this could have been made any easier. It was an essential examination of the organisation" (Partner).

"It was clearly advertised that AmbITion was about making a step change to your organisation. However, I focussed on the audience development aspects of our work - perhaps this was because the fund was being administered by Culture Sparks* who I associate with being an audience development agency. However, I realised during the AmbITion programme that we could have applied for funding to support us with improving our operational IT systems which could have fundamentally improved the effectiveness of our organisation. It would be fantastic if AmbITion had somehow been a two stage process where you get free consultancy, then can pitch for funding one you realise what the potential is. However, this may have not been possible?" (Associate) (*note: this was a misconception as this aspect was administered by Creative Scotland)

"Our organisation simply did not have the resources or capacity to take on the additional work - we thought we did, but with the project running at the same time as cuts to our funding any additional time we had was expended on lobbying councillors and MSP's" (Associate) (Culture Sparks, 2011)

Conclusions

Formalising the AmbITion Pilot Programme change management process into *The AmbITion Approach* eased dissemination, and created a method of being able to ensure that all organisations experienced the same process. However, the quotes above showed that this iteration of undertaking the approach within a very structured, formal programme was perhaps too time-demanding for resource poor organisations; and too inflexible for organisations that required a bespoke approach.

The programme design was what brought in the formalisation and structure to the 2009-11 programme. It was closely aligned to Creative Scotland's processes, but unfortunately, these were taking a long time to establish at the new organisation. AmbITion Scotland 2009-11's processes got locked into another organisation's infrastructure and mechanisms. Organisations undertaking *The AmbITion Approach* did so within the wider context of that formal and structured programme environment, with all its hiccups and delays caused by its shackling. If this frustration and barrier was to be removed, the programme and elements of the approach would have to be redesigned to ensure successful delivery in any future phase.

Appendix 14: Example Rich Media Case Studies

Examples of the rich media case studies online

Appendix 15 - Case Study Review Matrix Example

Organisation	Actions (new digital practices) evident in case study	# number of actions	Research/theoretical learnings evident in case study	# number of theoretical learnings	# total actions and theoretical learning (research)outputs
Off the Rails Arthouse	CRM, CMS, website, hosting, cloud services, online payments, digital archiving, social media, broadband, staff digital skills training, online book keeping, e-newsletter, SEO & analytics	13	Audited activities. Digital strategy developed with brainstorm and BMC, analysed market and customers with engagement blueprint, identified our resources and capacity, evaluated operating practices. Revisited vision and mission. We learned quite a lot about each other's strengths, weaknesses, hopes and fears - this has pulled us together more strongly as a group.	7	20
Art in Healthcare	Adressed problems and concerns in our digital platform through a new website(Comms), CRM, and database management system	3	Searched out inspiration and opportunities from other AmbITion case studies. Audited our activities. Defined stakeholders and customers via engagement blueprint. Digital mapping exercise and digital strategy developed using BMC and brainstorm.	4	7
Stills Ltd	Digital communications training, CRM, website, cloud based server and digital archive storage/backup	5	Business audit, analysis of stakeholder needs via engagement blueprint, back office audit, future business requirements via brainstorm, digital mapping, development of new digital strategy via BMC.	6	11
Glasgow East Arts Company (Platform)	Mobile website, online ticketing, digital smart mobile devices for community work, broadband infrastructure upgrade	4	Digital audit, customer survey, digital strategy developed via brainstorm, implementation plan	4	8
Artlink Central Limited	Improved comms via website and social media, app development with healthcare partner, education content	3	Skills and IT audit, Digital strategy and business case document developed through customer and stakeholder surveys and team brainstorm, short and long term IT implementation plans.	3	6

Organisation	# number of design practices utilised (e.g. engagement blueprint, stakeholder map)	# number of modern management consultancy tools used(e.g. Business Model Canvas - BMC, case study visits)	# number of creative practices used (e.g. customer journey stories, brainstorming, rich media case study production)	# total design practicess, modern management consultancy and creative practice methods used	# total actions, research outputs, design practices, modern management consultancy, and creative practices achieved
Off the Rails Arthouse	1	1	2	4	24
Art in Healthcare	1	2	2	5	12
Stills Ltd	1	1	2	4	15
Glasgow East Arts Company (Platform)			1	1	9
Artlink Central Limited			2	2	8

Organisation	Verbatim evidence relating to transformation	Verbatim evidence relating to adaptability (data analysis, learning quickly, agility)
Off the Rails Arthouse	We could articulate our future ambitions and ended up with a clear sense of direction. We could see clearly how to move our organisation forward. In the long-term, we recognised certain things - that organisational development might result in a change of focus within our customer base and a 'letting go' of some parts of our market. Having discussions about digital development was a real catalyst for wider creative thinking about our future	We recognised the need to become digitally 'fitter' so that the organisation could build sustainable and resilient business practices as it evolved from start-up into established social enterprise. Programme development is underway - we are currently planning workshops in digital photography and in the future hope to develop workshops in interactive media. We recognise that growth will take time, this is only one step in the process.
Art in Healthcare	We delved deep down into the heart of the organisation and very quickly we discovered that our mission and aims no longer accurately described who we were and what we were trying to do. Our future holds a brand new vision! As we addressed this identity crisis we explored a digital strategy that would support our real needs as individuals, the organisation. Leading to a blueprint for transformation.	We began realigning our vision and mission with our work. Clarifying what AiH does that makes us different from everybody else. Articulating our three year plan and twelve month objectives and quantifying what success would look like. With a comprehensive digital audit, technical spec, and business case in hand we are preparing to embark on the next stage of our adventure. Most importantly, we're feeling confident and excited because we know how to get there.
Skills Ltd	A new artistic strategy and business plan were developed for implementation July 2014, including a new vision and mission for Skills.	The implementation of everything will improve efficiency and productivity of staff, improve customer service, reduce communications costs and increase revenue from sales. AmbIT'on Approach has enabled us to develop a digital business case for Skills.
Glasgow East Arts Company (Platform)		The digital world's a bit of a minefield, so it was great to work through and get to where we want to be. We've got confidence in the implementation plan and a digital strategy that fits with our business strategy to take us forward. The implications are exciting for us.
Artlink Central Limited		The development of a comprehensive and joined up digital media and IT strategy and systems, with both short and long term plans for embedding the use of digital technologies within our organisation will help us free up staff time to identify new opportunities to sustain the organisation. We discovered we're not defensive about the changes we need to make. It taught us to listen to our gut reaction to technology solutions that were offered to us. We're not technology experts, but we are experts in our own business. We'll persevere in making sure we have digital capability even though funds are hard to find.

Appendix 16: Evidence of international interest in *The AmbITion Approach*

In 2011 the researcher presented keynote addresses at *Marketing de las Artes*, a national Spanish conference for the cultural sector held in Madrid, covering *The AmbITion Approach* and sharing case studies, and in Tallinn, Estonia at international conference *Creative Entrepreneurship for a Competitive Economy*.

Creative Entrepreneurship for a Competitive Economy International Conference Photo: Olev Mihkelmaa

In 2012, the researcher presented keynote addresses at *Marketing de las Artes*, a national Spanish conference for the cultural sector held in Madrid, covering *The AmbITion Approach* and sharing case studies. The 2012 event, focussed on monetising digital content was covered in Spain's national financial newspaper

Directivos

Austeridad y nuevas tecnologías, las claves del marketing del arte

Cuatro reputados
expertos opinan
sobre los retos a
que se enfrentan
museos, teatros
y otros centros
culturales para
ganar tráfico

Manuel G. Pascual. Madrid

EN MI OPINIÓN

EDUARDO LAZCANO
Pernod Ricard España (Madrid)
"La gente pide una
comunicación honesta
y veraz. Ya no vale que
me digas cómo eres
ahora tienes que serlo"

REBECCA TAYLOR
MoMA PS1 (Nueva York)
"Los museos siempre han
tenido que desarrollar una
buena oferta con recursos
limitados, pero ahora
la exigencia es mayor"

KINGSLEY JAYASEKERA
Sadler's Wells / The Space (Londres)
"El marketing tiene que
servir al producto, no
liderarlo, aunque es cierto
que puede contribuir
a mejorar su éxito"

HANNAH RUDMAN
AmbITion Scotland (Glasgow)
"La clave es detectar los
activos intangibles de
la organización y tratar
de explotarlos a través
de ideas innovadoras"

"El cliente
espera ahora
un diálogo no
jerárquico,
respuestas
rápidas
y online
y un trato
personal",
cree Rudman

Uno de los edificios
del Museum
of Modern Art
(MoMA)
de Nueva York.

In October 2013, Hannah Rudman presented a keynote address sharing the outcomes of *The AmbITion Approach* on creative and cultural organisations in Leon, Mexico, at the *Colloquia of VI Encuentro de las Artes Escenicas*:

The conference received much national press attention, for example:

Guadalajara, Jalisco
Jueves, 27 de Noviembre de 2014
Actualizado: Hoy 07:43 hrs

INFORMADOR.MX

Primera | Jalisco | México | Internacional | Economía | Deportes | Tecnología | **Cultura** | Entretenimiento

Artes Plásticas | Artes Escénicas | Literatura | Patrimonio | Música Clásica | Artes Visuales

Aviso de Ocasión

Autos | Bienes Raíces | Empleos | Diversos | Contrata

Temas Importantes: Guerrero | JCC Veracruz 2014 | Vida Social | Liguilla Apertura 2014 | Ferguson

Los desafíos de las artes escénicas

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Artes Escénicas | Guanajuato | FONCA

• Encuentro en Guanajuato

La propuesta del coloquio Desafíos y oportunidades para el desarrollo de las artes escénicas es abrir un espacio de discusión para estas expresiones

GUADALAJARA, JALISCO (14/OCT/2013).- Con el objetivo de brindar a creadores, grupos y programadores mexicanos más herramientas para la promoción y difusión de su obra, a partir de la aplicación de nuevas herramientas, se realiza el coloquio Desafíos y oportunidades para el desarrollo de las artes escénicas, en el Auditorio Mateo Herrera, de León, Guanajuato.

Mariana Aymerich, coordinadora general del coloquio del Fondo Nacional para la Cultura y las Artes (Fonca), que se realiza en el marco del VI Encuentro de las Artes Escénicas, del 11 al 15 de octubre, señaló que son especialistas en la materia las que abordan temas como el Desarrollo Digital para las Artes.

Citó como ejemplo la conferencia que impartió Hannah Rudman, fundadora de Rudman Consulting, procedente de Escocia, el pasado viernes, en la cual mencionó los muchos casos de éxito en su país.

"En esa conferencia creo que la respuesta fue muy buena, que todas las compañías y todos los programadores se quedaron con ese chip de que hay que aplicar las nuevas tecnologías y toda la parte digital a nuestro trabajo, que es fundamental para estar a la vanguardia de todo lo que está pasando a nivel global", señaló Aymerich.

Recordó que ahora es muy fácil tomar un teléfono, usarlo y conectarlo a internet para promover lo que uno hace, entonces estas conferencias están dirigidas a este tema que es fundamental para saber exactamente qué es lo que funciona mejor para cada producción.

La promoción con soportes digitales es uno de los temas a tratar en el encuentro que se desarrolla en el vecino estado de Guanajuato.

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Dialogan sobre desafíos para el desarrollo de las Artes Escénicas

Mariana Aymerich, coordinadora general del coloquio del Fondo Nacional para la Cultura y las Artes, enfatiza la utilización de las nuevas tecnologías y los límites dentro de las artes escénicas

13/Oct/13 18:49 | A+ A-

Facebook 0 | Twitter 0 | + | Comentarios: 0

Mariana Aymerich señaló que son especialistas en abordar temas como el Desarrollo Digital para las Artes. Foto: Archivo.

Notimex - Con el objetivo de brindarles a creadores, grupos y programadores mexicanos más herramientas para la promoción y difusión de su obra a partir de la aplicación de nuevas herramientas, se realiza el coloquio "Desafíos y oportunidades para el desarrollo de las artes escénicas", en el Auditorio Mateo Herrera, de León, Guanajuato.

En entrevista, Mariana Aymerich, coordinadora general del coloquio del Fondo Nacional para la Cultura y las Artes (Fonca), que se realiza en el marco del VI Encuentro de las Artes Escénicas, del 11 al 15 de octubre, señaló que son especialistas en la materia las que abordan temas como el Desarrollo Digital para las Artes.

In February 2014, the researcher travelled to Australia to present the keynote at the 10th annual NARPACA Ticketing Professionals Conference *TOOLKIT 2020: knowledge & skills to see you into the next decade*.

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10th Annual Ticketing Professionals Conference in 2014

2020 toolkit
Brisbane, 17–19 Feb 2014

TOOLKIT 2020:
Knowledge & skills to see you into the next decade

The theme for the 2014 Ticketing Professionals conference is TOOLKIT 2020: Knowledge & skills to see you into the next decade.

Over three busy days, delegates will hear from national and international experts and network with peers from around Australia and New Zealand. As part of the conference, the trade show offers system vendors and delegates the opportunity to share, discuss and demonstrate recent advances in ticketing systems and services. Day One on Monday 17th February is the training day with ticketing vendors followed by the keynote and opening cocktail party. Tuesday and Wednesday the conference sesssions kick in and the accompanying tradeshow.

The venue for the conference and tradeshow is the Pullman Brisbane King George Square and accommodation is in the immediately adjoining tower the Mercure Brisbane King George Square. The venue and accommodation could not be any more central, immediately opposite Brisbane City Hall and within easy walk of the

Testimonials

Debbie Richards

Organisation: Baker Richards

Position: Director

Debbie Richards is the co-founder of leading UK-based consulting and software firm Baker Richards and a Vice-President of its US sister company **The Pricing Institute** . The companies specialize in helping arts organisations maximise their income through evidence-based decision-making.

Debbie has been consulting with arts organisations for more than a decade, and has spoken on pricing, marketing and behavioural economics at conferences across the globe.

Prior to her consulting career, Debbie worked as a site-specific theatre producer, having previously headed up the marketing department of a performing arts centre and worked in theatre marketing.

Hannah Rudman KEYNOTE

Organisation: Rudman Consulting

Position: Director

Hannah Rudman of **Rudman Consulting** is Founder of **AmbITion** , a national-scale digital development programme for the creative, cultural and heritage sector.

Hannah has overseen the strategic digital development of over 150 cultural, arts and heritage sector organisations, across all operational and business models. She has also written **The AmbITion Approach** - an online hands-on change approach and toolkit for creative organisations, practices and individuals looking to undertake digital developments.

Hannah advises on national and international cultural policy around digital and organisational development, and speaks on the topic internationally. She is an Associate of **Mission Models Money** ; a Lecturer at Edinburgh Napier University's School of Computing; and is on the board of macrobert.

Hannah also runs a series of projects branded **Envirodigital** which encourage the use of digital technologies for economic, social and environmental sustainability.

Envirodigital helped to establish the National Theatre Wales as a virtual organisation; co-produced an award winning (Best Technical Production, Critics Award for Theatre in Scotland) virtual theatre project **Five Minute Theatre** with National Theatre Scotland in 2011; and is currently developing CO2 Savings software.

Anthony Shearsmith

Organisation: Independent

The keynote included an overview of the approach and case study examples, as evidenced by others' tweets:

Tix_Professional TixProf
Stories on how other (sometimes small) organisations have overcome the same digital development challenges http://t.co/oq2bnhlakD #tixprof
↩ Reply   ⇄ Retweet   ☆ Favourite   Tue Feb 18 02:03:46 2014

Tix_Professional TixProf
@hannahrudman joins us again to run the Joined Up Digital - The @getambITion Approach to Digital Development #tixprof
↩ Reply   ⇄ Retweet   ☆ Favourite   Tue Feb 18 01:42:21 2014

Tix_Professional
@TixProf   +• Follow

Captivated audience for @hannahrudman digital technology keynote at #tixprof

↩   ⇄   ★   •••

10:37 PM - 16 Feb 2014

Appendix 17: Published, peer-reviewed papers

Paper published in online conference proceedings of iFutures 2014, University of Sheffield, 22.07.14[98]

The AmbITion Approach: examining action research into organisational practice

Hannah Rudman

Associate Lecturer and Researcher, School of Computing, Edinburgh Napier University. Email: h.rudman@napier.ac.uk

Abstract

Digital technologies have had profound impacts on the whole value chain of the creative sector. Arts, cultural, and heritage organisations and practices are under pressure to adapt to digitisation rapidly, so that they are fit for business in a digital economy. They currently face a major significant challenge: how to adapt to and cope with emerging digital behaviours as they impact traditional artistic, audience development, organisational and business practices.

The AmbITion Approach, a new change management methodology, was applied to over 25 Scottish creative enterprises. The approach is cross-discipline: combining action research with design and creative practices, and management consultancy methods, and is a framework for strategic organisational development and change. Doctoral research is studying the concepts, methodologies, and tools of The AmbITion Approach.

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[98] https://conferencepapers.shef.ac.uk/index.php/iFutures/2014/paper/view/55 , last accessed 11.08.14.

This paper considers research methods and implications for practice in the field of digital technology management in the creative and cultural industries. It highlights aspects of participants' experiences, with case study examples of when action research has become industrial/sectoral practice. The paper identifies and discusses the methods of how new practices were shared more widely with the creative industries, and how research was therefore embedded in the outputs, outcomes, and new on-going practices of businesses within the sector.

Keywords: *Action research, digital disruption, emerging technology management framework, open innovation, qualitative research methods, CAQDAS, cultural and creative industries.*

Introduction

Recent government policy documents show that already emerged digital technologies have caused great disruption in the creative industries (Department for Culture Media and Sport, 2013). Recent studies show that most SME and micro-enterprise scale organisations have struggled to successfully become digital businesses: developing digital product, service, and experiences in an ad hoc manner, rather than strategically embedding digital across the organisation (O'Connor 2009; Searle 2011). Capability, capacity, and confidence in change management is an important aspect of organisational development in a dynamic business and technological environment.

Background

Empirical research into current innovation approaches concludes that their impacts are creating new products and new businesses and markets. Whilst this creates the potential for brand new products and services, only a few organisations receive support. The recent approaches fund radical change in the few, and do not support the widest adaption across the sector of existing organisational and business models – the focus has sidelined core adaptation

skills within the traditional incumbents (Arts Council England, Nesta, & AHRC, 2013).

Making change management methodologies attractive, accessible, and appropriate to all scales and operational models of creative and cultural enterprises has demanded a blend of learning approaches. A new, cross-disciplinary approach for emerging technology management has been developed, improved and modified since 2008 – *The AmbITion Approach* (Rudman, 2012). As part of a national digital development programme for the creative industries sector that ran between 2009 - 2014[99] the approach has been tested and its impact evaluated through applied doctoral research.

The AmbITion Approach takes organisations through a novel cross-disciplinary approach that blends the traditional methods of strategic change management consultancy (Deming, 1993) with action research. Action research methods seek to create action, and knowledge or theory about that action through iterative cycles of gathering data, feeding it back, jointly analysing the data, jointly planning action and implementing it, evaluating jointly, and so on (Reason & Bradbury, 2008). Action research is especially appropriate for sectors where experiential learning and reflective practice are norms in organisations, such as the creative industries (Coghlan, 2010). The methodology uses a social science approach to study the resolution of important organisational issues, working together with those who experience the issues directly (Lewin, 1946/1997). Additionally within *The AmbITion Approach* some of the tools, principles, and techniques of design thinking are utilised (Design Council, 2005). Figure 1 below shows the blend of cross-discipline methods that make up *The AmbITion Approach*:

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[99] See http://getambition.com , last accessed 15.01.15.

Figure 1: blend of cross-discipline methods making up The AmbITion Approach

Research Methods

From 2011-2014, a longitudinal study evaluated over twenty organisations undertaking *The AmbITion Approach*. As a way to encourage digital development within the creative industries sector, the approach was embedded within a national development programme within Scotland (AmbITion Scotland, 2012-2014)[100]. As a digital development programme for a dispersed geographical region, the programme was run online, and operated as a virtual project.

All data from the businesses that participated was collected digitally through online forms via the website. Online research tools gathered documentary and numerical data from the enterprises including thinking and planning processes; implementation and action frameworks; and reflective and evaluative documentation of each organisation's journey through *The AmbITion Approach*.

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[100] See http://getambition.com/scotland , last accessed 15.01.15.

The tools were designed as a core part of the programme's online infrastructure. They were developed by the researcher to explicitly deal with the ethics of using the material for research, and to automatically create numerical forms and digital analytics, as well as organizing a great deal of digitised reflective text (c. 30,000 words from over twenty businesses).

The doctoral studies have tested and evaluated the impact of the approach through a framework of mixed methods – both qualitative and quantitative studies have been applied to analyse the data. There is no prescribed standard for approaching qualitative projects, however, the general method of classic grounded theory is commonly used as a methodology for the analysis of qualitative data (Glaser, 1998). Glaser's classic grounded theory methodology was cross-referenced with Miles & Huberman's steps of qualitative analysis (Miles & Huberman, 1994), to form the framework method for analysis of data in this study:

Stage of research method	Glaser's classic grounded theory	Miles & Huberman steps of qualitative analysis	Timeframe during this study
1	identify area	Data reduction	Pilot study, 2011-2012
2	collect data	Data reduction	2012-2014
3	analyse data by comparison and interpretation into open codes which emerge from the data,	Data reduction/organisation	2014
4	develop theoretical codes which conceptually connect within categories	Data display and explanation	2014
5	align categories with research themes or concepts	Conclusion drawing, and testing their plausibility	2014

Figure 2: Timeframe, reflecting the application of the data analysis framework longitudinally

Digital technology has shaped the development of action research based processes in the past (Koch, 2006), and IT played a major role gathering and

processing data in this study. SNAP Online survey software, Google Analytics, and Computer Assisted Qualitative Data Analysis Software (CAQDAS) software NVivo 10 were the softwares used to organise and query the data.

Initial findings

The digital documentation gathered throughout participants' engagement with a change journey through *The AmbITion Approach* created longitudinal case studies of experiences. Business cases, presented in initial application forms, mapped the starting points and aspirations of organisations. Digital audits and business model canvasses showed where an enterprise was at, and where it desired to be digitally. Business and implementation plans revealed the changes to be made, and online reflectionnaires and rich media case studies, created for open access publication online, reflected on the changes achieved, and the learning embedded. The documentation gathered reflected the practical actions taken and practical lessons learnt; and the theoretical knowledge gained by businesses and the sector more widely:
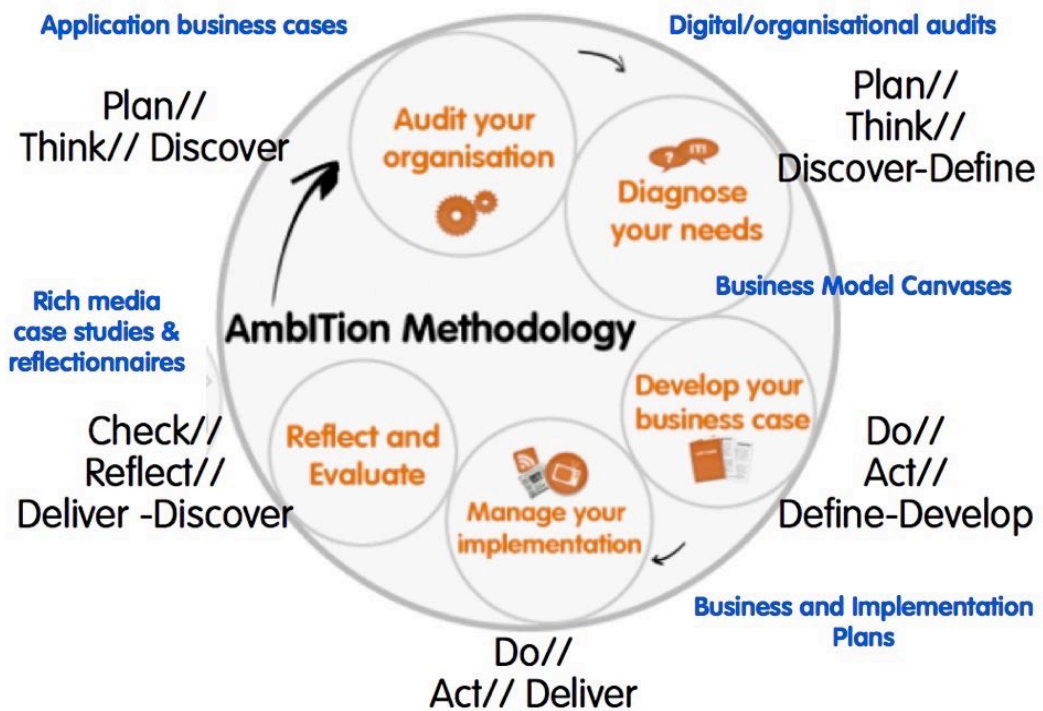
Figure 3: Case studies emerge through documentation gathered at different stages in The AmbITion Approach journey

Analysing this qualitative data highlighted aspects of participants' experiences to show digital adaptation and change achieved. Reviewing the documentation data corpus from all participants revealed common topics, concerns, and aspirations at all stages of a digital development journey. A structured coding scheme has been generated and will now be applied to all organisations' case study documentation, gathered across the longitudinal study, to show the extent to which confidence, capacity, and capability in adaptation has grown.

Discussion

Action research methods have been useful for a longitudinal organisational study, looking at the development of enterprises over time. It is the digital data collection tools and software analysis tools that have made the action research scaleable: collecting more than 30,000 words of over twenty organisations' business case

aspirations, plans, and evaluations would have been difficult to organise and achieve as a lone, analogue researcher.

It was the method of action research (think, act, and reflect on the practical and theoretical outcomes and outputs) that resulted in the case studies, which when published openly online were deemed attractive content, were viewed and so shared the learnings more widely.

Opening access to the action research-based change methodology of *The AmbITion Approach* by publishing it online ensured wider engagement with the framework, process, and all its tools. The outputs and the outcomes, the case studies from the participants, are also openly available online. On the topic of adapting to digital technologies, the rich media resources showed practical actions taken and shared practical lessons learnt; they also highlighted the theoretical knowledge gained by businesses. These rich media resources – films created by the businesses, Prezi and Slideshare interactive presentations, documentary videos - have been seen by over 17,000 unique visitors each year. The average dwell time on the getambition.com website is 3 minutes 58 seconds (for comparison, brand sites receive 2-3 minute dwell times, the BBC achieves the world's best at 10 minutes per visit)[101].

The scale of the online visitor statistics showed that this material was being viewed by the creative industries sector more widely, and not just by programme participants. Visitors were from locations further afield than Scotland. For example, during the month of November 2013, the Google Analytics overview of visits to the website show c. 120 visits on an average weekday, of which almost 54% were from Scotland. The dips at the weekend show that the resources were viewed most when professionals were at work (leisure sites have peaks at the weekend).

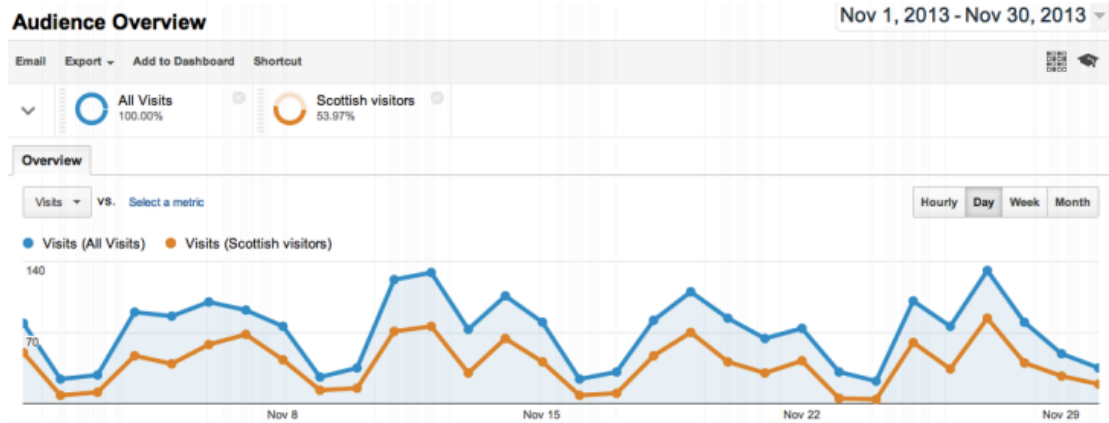[101] See Smart Insights, http://smartinsights.com , last accessed 20.01.15.

Figure 4: November 2013 unique visitor overview to getambition.com showing percentage of Scottish visitors (Source: Google Analytics, 30th November 2013)

Conclusions

Using rich media to present action research outcomes and findings has been a successful mechanism for presenting to the public results of research, and could be applied more widely by academia. However, action research as a method has only had significant efficacy in the creative industries in Scotland because of the amount promotion around the website, and organisation of the opportunity to participate in an action research-based change journey, through a funded programme.

This paper has considered research methods and implications for practice in the field of digital technology management in the creative industries. There is scope for the methodology to be used in any sector. Research now needs to consider how action research–based change methodologies can be packaged and presented to any enterprise in any sector facing the challenges of disruption from emerging technologies.

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A framework for the transformation of the incumbent creative industries in a digital age

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Abstract

Purpose – New business models emerged within the creative industries when advances in information and communication technologies (ICTs) altered the patterns of cultural consumption worldwide. Digital technologies altered the way creative products were created, produced, reproduced, distributed, and commercialised at national and international levels. In the face of the continual emergence of digital disruptions, the traditional, existing sector is failing to rapidly enough adapt. The purpose of the paper is to provide a better understanding of an emerging framework for the transformation of incumbent cultural and creative enterprises in a digital age, called *The AmbITion Approach*.

Design/methodology/approach – Empirical work developed *The AmbITion Approach* into a framework for business transformation in a digital age: blending participatory action research methods with modern management consultancy tools and design and creative practices. Digital research tools for inquiry were designed and prototyped, tested by a pilot study, and then embedded in a longitudinal study over two years of twenty-one participant organisations from Scotland's creative sector. Detailed grounded thematic analysis of the data corpus was undertaken, along with analysis of rich media case studies produced by enterprises about their change journeys. Empirical work also introduced to the framework Coghlan and Rashford's change categories.

Originality/value – These enabled the description of the extent to which organisations developed: whether they experienced first order (change), second order (adaptation) or third order (transformation) change. The results of studies on participants, and validation criteria applied to the results, have demonstrated the approach triggers second and third order change. It is suitable for incumbent creative businesses to apply within the continuing landscape of digital disruption. However, all sectors face ongoing digital disruption.

Practical implications – Management consultancy practices, and business strategy academics have called for new, empirically tried and tested, strategy development frameworks and toolkits, fit for a digital age. The concepts, methods, toolkits, and processes of *The AmbITion Approach* have been validated in the field as a new framework for business transformation for creative industries in a digital age. The

findings justify provocations on current UK government creative economy policies. Governments must improve digital/economic development policy to better support incumbent, traditional creative enterprises providing cultural value, if they are to survive.

Paper type – Academic Research Paper on practice

Introduction

The creative industries sector faces a constantly changing context characterised by the speed of the development and deployment of digital information systems (IS) and Information Communications Technologies (ICT) on a global scale. This continuous digital disruption has had significant impact on the whole value chain of the sector: creation and production; discovery and distribution; and consumption of cultural goods and services. As a result, creative enterprises must evolve business and operational models and practices to be sustainable. Digital disruptions and developments require of creative sector organisations new products, operational practices, and business models. Creative organisations have struggled to maximise the opportunities of digital technologies because of a piecemeal approach to their operational integration. This situation developed over the long-term due to a fragmented funding and investment landscape, and an external context of rapid change. Creative organisations also suffer a reticent reaction to digital technologies' importance and impact, especially on:

- audience behaviours (e.g. altering perceptions of proximity and intimacy);
- artistic practices (e.g. on conventions and practices which are socially embedded rituals of experience); and
- business models and practices (e.g. ownership, IP and contracts, new digital production methods, and digital distribution channels and consumption mechanisms) (Department for Culture Media & Sport, 2010).

The *Digital Content Snapshot* of 2009 reported on the digital developments of all of Arts Council England's regularly funded organisations, and concluded that whilst most had some kind of online offering that transmitted information, the best interactive experiences and content were produced by a very small number of organisations. "There is considerable scope for improvement" the report concluded (MTM London, 2009). Similarly, the Minister for Culture and Tourism at the time, the Rt Hon Margaret Hodge, said "there is a real gap between those institutions who do fantastically well and others who are finding it difficult to catch up" (Department for Culture Media & Sport, 2010, p. 19). However, throughout the current age of austerity that started in 2009, support and funds for the digital development of traditional businesses dwindled across the UK's creative sector and internal and external finance for business model development or organisational development is now scarce. Validated cheaper mechanisms for delivering organisational and digital development for the creative industries' traditional businesses are required.

The UK's creative sector became world-class and world-renowned in an analogue era by understanding how to control its assets. It was the gatekeeper of how assets were distributed, and was the guardian of quality as it influenced how assets were presented and described. It might therefore have been expected that the historical strengths of the UK's creative industries would support a comfortable transition to digital markets. The period since 1990 has seen the consistent emergence of new disruptive digital technologies. This has brought the previously "analogue" creative industries to a point of great challenge - for example, the newspaper industry has been threatened, the music industry has been hugely disrupted (Naughton, 2012). Cultural, arts, heritage and creative organisations are under pressure to adapt to digitisation rapidly, so that they are fit for business in a digital economy (MTM London, 2013a, p. 7). Increasing numbers of audiences consume the arts through digital channels and devices, and while this

presents nascent possibilities for creative organisations, it also has significant impact on current practices for the production, distribution, and the creation of meaning for audiences. The penetration of digitisation into some of these relationships has fundamentally altered them. Recent research by Thomson, Purcell and Rainie suggests that the culture of culture in the United States has "gone digital": increasing numbers of arts audiences are consuming performing arts through live or recorded digital broadcasts (Thomson et al., 2013, p. 5). Digital technologies have caused disruption: to the way that content is created, produced, discovered, distributed, and consumed. Digital technologies have also disrupted creative services and experiences, through introducing an audience expectation of participation and collaboration. Business uncertainty and disruption in the creative sector has been caused by the impact of digital technologies, and this is set to continue.

The *Digital Britain* report (Carter, 2009) was the government's strategic vision for ensuring the UK's place in a global digital economy and stated that digital media was an expected part of modern life, and organisations defined as public service providers (in receipt of public funds) were required to recognise digital technology driven services and offerings as core, not optional. This meant the publicly funded traditional cultural, arts, and heritage sector must digitise relationships with their audiences and adapt their products, operations, and business models for delivery online. At the same time, they must remain true to core missions of developing community-embedded relationships, and delivering live, analogue experiences (MTM London, 2012). However, supporting this is not necessarily the focus of public funding. The report of a 2014 survey of 947 English arts organisations stated that 70 per cent of arts and cultural organisations cited lack of funding and time, and over a third still felt that they did not have the in-house skills, IT systems, or the necessary expert advice to meet their digital aspirations (MTM London, 2014). The best funded approaches to help the creative sector digitalise focussed on funding new digital innovations and products, rather than supporting digital adaptation across all areas of an enterprise. Whilst this created the potential for brand new digital products and services, only a few organisations received the funding.

Practitioners and academics have recently considered the impact of continuous changes in markets, technologies, and external risk. They have questioned the relevance of existing frameworks and tools for developing and implementing successful business strategies. Management techniques focused on emerging or disruptive technologies are immature, and are often under-appreciated by managers (Linton and Walsh, 2008). Groen and Walsh discussed how managing emerging technologies is critical, but recognised that "better techniques are needed: for their management, to create policy and educate professionals to commercialise and govern them" (Groen and Walsh, 2013, p. 1). The Sir Donald Gordon Chair of Entrepreneurship and Innovation, at London Business School, Professor Michael G. Jacobides, acknowledged that academic research should account for and try to address at least some of the practitioners' concerns and needs, reflecting: "Let's rethink these frameworks together with people who use them in their professional practice, and revise the strategy canon" (Webb, 2014). The academic community in the field of business and management has recognised the need for new frameworks for business transformation.

Studying an approach for business transformation for the creative industries in a digital age

A novel approach to organisational change appropriate to the digital age was created in the context of the creative sector in Scotland to support incumbent enterprises to undertake change journeys and digitally adapt. A set of concepts, methods, tools, and processes to generate theoretical learning and practical knowing was created to support enterprises to digitally adapt through undertaking journeys of change and organisational development. The framework is called *The AmbITion Approach* (Rudman, 2015).

Developing the approach

The AmbITion Approach takes organisations through a novel cross-disciplinary approach that blends the traditional methods of strategic change management consultancy (Deming, 1993) with action research. Action research methods seek to create action, and knowledge or theory about that action through iterative cycles of gathering data, feeding it back, jointly analysing the data, jointly planning action and implementing it, evaluating jointly, and so on (Reason & Bradbury, 2008). Action oriented research design demands that research takes place concurrently, whilst action is ongoing, with research and actions undertaken by the participants from the organisation. The research is *in* action, rather than *about* action. (Shani and Pasmore, 1985, p. 439). Participatory action research (PAR) has been extensively discussed as an appropriate framework to apply in the field. PAR is especially appropriate for sectors where experiential learning and reflective practice are norms in organisations, such as the creative industries (Coghlan, 2010). PAR was a suitable addition to the framework of *The AmbITion Approach* (and therefore the research design) because it recognised the researcher (and the research tools) as a part of the enquiry and development, as well as the actively engaged organisation. Both (staff and facilitator/consultant/co-researcher) acted to shape the research and action project (Elden and Chisholm, 1993) - in this case, the digital development journey of creative organisations. The methodology uses a social science approach to study the resolution of important organisational issues, working together with those who experience the issues directly (Lewin, 1946/1997). Within *The AmbITion Approach's* toolkit modern management consultancy tools such as the business model canvas (Osterwalder and Pigneur, 2010) were included. Also included were some of the tools, principles, and techniques of design thinking (Design Council, 2005), for example stakeholder maps, engagement blueprints, user journey touchpoint diagrams, etc. Creative practices such as brainstorming and storytelling and creating rich media assets were also included. Figure 1 below shows the blend of PAR methods and modern management consultancy, design, and creative practices that make up *The AmbITion Approach*:

Change Management//Action Research//Design Thinking

Figure 1: blend of cross-discipline methods making up The AmbITion Approach

Empirical work also introduced to the framework Coghlan and Rashford's change categories as table 1 below shows:

Type of change	Definition	Example evidence of change and learning (themes)
First order	Specific change occurs within existing ways of thinking.	Improvements in products or services.
Second order	Change requires lateral thinking and questioning of core assumptions.	System-wide change in ways of thinking and acting - can lead to new business, operational models
Third order	Organisation learns how to question own assumptions and points of view, and develop and implement new ones	Organisational transformation

Table 1 - Coghlan & Rashford's change categories

These enabled the definition and description of the extent to which organisations developed: whether they experienced first order (change), second order (adaptation), or third order (transformation) change (Coghlan and Rashford, 2006). This aspect of the research design meant that the study assessed levels of change across a number of organisations, without a single researcher needing to facilitate all the cases. The responsibility for theorising and solving issues did not rest solely with the researcher. This was

because of another general characteristic of action research: it is collaborative - participants of the system studied were actively engaged in the cyclical process (Lewin, 1946).

The AmbITion Approach's effectiveness as a framework for business transformation in a digital age was investigated through a study of twenty one Scottish creative organisations and practices that engaged with it. The enterprises were of differing focus, scale, and operational model. The author applied and investigated the novel approach in a national digital development programme for Scotland's creative industries (the AmbITion Scotland[102] programme was designed and delivered by the first author of this paper, and ran nationally between 2012-14). The information system enabled the aggregation of data for prompting more action and for research. The information system collected data from the creative enterprises in Scotland by research tools embedded in the online mechanisms. A Wordpress powered social network website[103] and linked social media channels were the information system used by the participant organisations of the AmbITion Scotland programme. All data from the businesses that participated was therefore collected digitally through online forms via the website. Online research tools gathered documentary and numerical data from the enterprises including: thinking and planning processes; implementation and action frameworks; and reflective and evaluative documentation of each organisation's journey through *The AmbITion Approach*. The tools were designed as a core part of the programme's online infrastructure. They were developed to explicitly deal with the ethics of using the material for research, and to automatically create numerical forms and digital analytics, as well as organising a great deal of digitised reflective text (c. 30,000 words from over twenty businesses). The data gathered by the tools was qualitative and quantitative, to capture both the experience of organisations going through *The AmbITion Approach,* as well the facts about the change journeys. The strategy for the evaluation of the data was tested by initial empirical work in a pilot study, and was implemented in the main research through two studies that looked at organisations before and after their engagement with *The AmbITion Approach* (a benchmark and a comparison).

Digital technology has shaped the development of action research based processes in the past (Koch, 2006), and IT played a major role gathering and processing data in the study. All the data collected by the study was digital in its native form, therefore it was in the right format already for analysis using software. Analysis of the large data corpus of narrative texts, surveys, and rich media reports in video, Powerpoint, and Prezi formats was undertaken through mixed methods, supported by Computer Assisted Qualitative Data Analysis Software (CAQDAS), NVivo 10[104]. Manual analysis of large amounts of digital data would have been extremely time-consuming and difficult, if not impossible, and efficiencies were brought to the qualitative research, such as being able to return to a big data set with different questions and receive new results in real time. Snap[105] online survey analysis software was also utilised, as it offered a multi-mode approach to distributing surveys, and ensured data was collected reliably over a long period of time. Google Analytics software was used to validate results. A thematic analysis was

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[102] http://getambition.com/ last accessed 17.04.15.

[103] See http://getambition.com/members last accessed 17.04.15.
[104] See http://www.qsrinternational.com/products_nvivo.aspx?utm_source=NVivo+10+for+Mac

[105] http://www.snapsurveys.com/survey-software/ last accessed 17.04.15.

applied to the data corpus through the framework of grounded theory (Glaser, 1998, p. 141) to establish the themes and concepts. At the beginning of their digital development change journeys, organisations expressed practical and theoretical knowledge needs as well as hopes, aspirations, worries, and issues around digital development. The thematic analysis generated a fully structured coding scheme which was deductively applied to all data sets. The benchmark study established a baseline which enabled the comparison study of data gathered at the end of change journeys. Analysis also revealed what practical and theoretical knowledge was generated when organisations adapted, and whether the concepts, methodologies, and toolkits of *The AmbITion Approach* could be a framework for business transformation in a digital age.

Results of the study

The mixed methods analysis of the *before* and *after* datasets and the comparison between them, proved that through undertaking *The AmbITion Approach*, enterprises built skills in adaptation to deal with disruptive digital technologies. The codes generated by the thematic analysis allowed a grounded analysis of the organisations' qualitative data, which showed increases in the notions of digital Capability, Capacity, Confidence, and Adaptability and Legibility. Establishing the different levels of categorisation of change through applying Coghlan and Rashford's definitions facilitated more nuanced conclusions about the type and extent of change organisations achieved. Organisations being prepared to completely change and transform what/how they do things to become a digitally enabled business, can be described as having experienced third order change, or transformation.

To what extent did enterprises undertaking The AmbITion Approach adapted to deal with disruptive digital technologies?

Almost half the organisations (nine or 47.36%) that undertook *The AmbITion Approach* experienced second order change, seeing their businesses building the criteria to become adaptive to digital disruption. Three of the organisations (15.78%) experienced first order change, as they were at the beginning of a period of implementing change, having spent their *AmbITion Approach* journey planning, rather than acting.

An unexpected and significant result was that over a third of the organisations (seven or 36.86%) that undertook *The AmbITion Approach,* experienced third order change, seeing the transformation of their enterprise into a digital business. The significant majority of organisations engaging with *The AmbITion Approach* adapted, but over a third experienced not just adaptation but transformation. The percentage statistics have provided an interesting measure, but the sample size is too small to justify conclusive statements.

What practical and theoretical knowledge was generated by organisations undertaking The AmbITion Approach?

The implication of PAR methods embedded in *The AmbITion Approach* was that organisations would see two types of impact: actions (outputs) and research/theoretical learning outcomes. The rich media case studies and business plan data was analysed, to investigate the extent to which new practical and

theoretical knowledge was generated. Sixty six actions were achieved in total by sixteen organisations, and sixty nine research/learning outcomes were also achieved. Actions achieved by organisations for example were digital developments such as online ticketing systems, or social media enabled websites. Examples of research outcomes achieved were digital strategies, customer engagement and market analysis, or implementation plans. Organisations achieving lower than 7.43 action outputs and research outcomes, achieved just adaptation. Organisations achieving over 9.11 action outputs and research outcomes were more likely to achieve transformation. The review of rich media case studies and business plans revealed that organisations which utilised two or less of the modern management consultancy tools and creative and design practices achieved adaptation, and generated new practical and theoretical knowledge. However, organisations utilising over 3.56 tools and practices achieved transformation.

Could the concepts, methodologies and toolkits of The AmbITion Approach could be a framework for business transformation in a digital age?

A final tally of totals - of action and research outcomes added to the totals of modern management consultancy tools, design and creative practices utilised - proved that the total number overall impacted the likelihood of transformation. Organisations achieving transformation had a higher average total number of action and research outcomes, modern management consultancy tools, design and creative practices achieved (11.67) than organisations achieving adaptation only (an average of 9.43 total). Achieving more action outputs, research outcomes, and utilising more modern management consultancy tools, and design and creative practices was more likely to result in the organisation experiencing transformation. The 47.36% of organisations using less concepts, tools, and methods still achieved digital adaptation. The 36.86% of organisations that achieved transformation embraced more of the concepts, tools, and methods of *The AmbITion Approach*, as already discussed above. This proves the concepts, methodologies, and toolkits suitability as a framework for business transformation in a digital age.

Discussion

As an interpretive study, the enquiry did not measure whether organisations without contact with *The AmbITion Approach* would have adapted or transformed anyway. However, recent surveys of the wider sector in England provide some comparable data to give insight into this. The *Digital Culture 2014* survey looked at 947 English cultural organisations. 55% of cultural organisations were reportedly undertaking activities that this study would have described as change, but of the first order. They were making improvements in products and services they were already engaged in: the survey reported organisations optimising their existing web presence for mobile, and enhancing their use of social media to engage audiences. *Digital Culture 2014* reported increasing numbers of cultural enterprises enhancing their data capabilities (36% up from 30% in 2013). This study would have defined this as a second order change, or an adaptation that could lead to new business models, and which required lateral thinking (it was not a traditional activity). The report also notes the percentage of organisations engaging with the digital innovation opportunities (the 10% described in the report as the 'cultural digirati'). This study would have classified this group as experiencing third order change, implementing new business models to transform the business (MTM London, 2014). The *Digital Culture 2014* report had a far higher base of 947 respondents, compared to the twenty one cases this study reviewed. However, as an arbitrary

comparison, the digital development performance of English cultural organisations, as measured by the *Digital Culture 2014* report, can be compared against the digital development performance of Scottish creative organisations that participated in *AmbITion Approach* change journeys. Table 2 below shows the levels of change achieved amongst a large group of organisations, compared to a small group of organisations that undertook *The AmbITion Approach:*

Level of change achieved	% English cultural organisations with no engagement with change or organisational development programmes	% Scottish creative organisations that have undertaken *The AmbITion Approach*	Notes
First order change	55	15.78	
Second order change (adaptation)	36	47.36	
Third order change (transformation)	10	36.86	The 10% 'cultural digirati', were beneficiaries of digital innovation support and funding
Total	101	100	*Digital Culture 2014* report rounded all percentages up to round figures, giving a 101% total
Sample size	947	19	

Table 2: Comparison of levels of change achieved by different digital development approaches

Indicatively, 10% of English organisations achieved third order change. This group did receive digital innovation support, and third order change was achieved, but by a much smaller percentage than organisations undertaking *The AmbITion Approach*. The remaining 90% of English organisations received no support, and a significant percentage of organisations (36%) achieved second order change, and adapted anyway. A larger percentage (47.36%) of organisations that had received support to undertake T*he AmbITion Approach* achieved second order change. 55% of those receiving no support achieved first order changes, developing digital products or services ad hoc, a much higher percentage than the 15.78% *AmbITion Approach* organisations that only achieved first order change. Indicatively, the approach of no support results in a majority of organisations making first order changes anyway, and over a third of organisations making second order changes anyway. The 10% of English organisations achieving third order change were financially supported. Scottish organisations undertaking *The AmbITion Approach* were also supported, but a much higher percentage, over a third, 36.86%, achieved transformational, third order change. It indicatively appears that comparatively, *The AmbITion Approach* is three-fold more likely to achieve transformation and third order change in creative businesses, than development approaches supporting only digital innovations.

The concept of a change journey, as encapsulated in *The AmbITion Approach* with its methodology of participatory action research, and toolkits of modern management consultancy, creative, and design practices, set within a single information system, could be established as a framework for enterprises in other sectors seeking adaptation and transformation in the face of digital disruption. The website of the information system is still live online[106], sharing all the practical knowledge of the participants. The social media channels of the information system are also still live[107]. The work contributes to knowledge a specific set of constructs and criteria that define first, second, and third order change in creative enterprises looking to digitally develop, and methods, concepts, and tools that support the achievement of the change. Figure 2 below offers an overview of the theoretical and conceptual framework as a schematic:

Organisations looking to digitally develop…
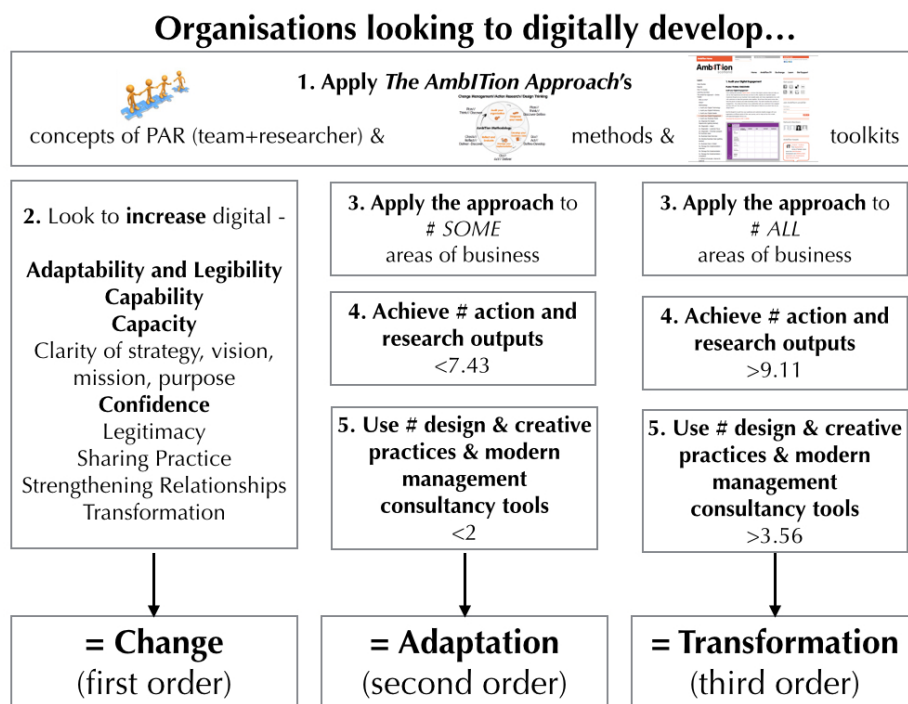
Figure 2: The theoretical and conceptual framework of The AmbITion Approach in diagram form

Conclusions

As they enable third (transformation) and second (adaptation) order change in a significant majority of participant organisations, the concepts, methodologies, and toolkits of *The AmbITion Approach* have been validated through the study as a new framework for business transformation.

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[106] See http://getambition.com/learn/toolkit last accessed 16.04.15.

[107] The @getambition handle on Twitter has 3567 followers and the GetAmbITion Facebook Page has 567 likes at 16.04.15.

The study proved that traditional creative industries can achieve transformation and third order change, with the right tools and support. Within the creative industries currently though, support is focused on developing new digital innovations. This creates a vicious cycle of funding the 'cultural digirati', rather than the incumbent, traditional businesses that are struggling to adapt to digital disruption. Whilst there is no explicit call to suggest alternative methods, mechanisms, nor policies to support any business in the sector adapt to digital disruption, the work of this study has validated *The AmbITion Approach* as an alternative.

In the US and UK, the cultural value debate is currently a hot one - the discussion of 'value' has been inextricably linked to the challenge of 'making the case' for the arts and for public cultural funding. Prevailing evidence-based policy making for the creative sector is still taking the direction of economic instrumentalism (Belfiore, 2015). The findings of this study justify provocations on current UK government creative economy policies. The UK government believes that including the digital lions, the IT, telecommunications, and software companies in the creative economy sector will put the UK at the top of the innovation and economic impact curve. However, governments must improve digital/economic development policy to better support the digital lambs, incumbent, traditional creative enterprises providing cultural value, if they are to survive in the digital fold. Provocation is needed, as support currently funds digital innovation, which mainly benefits the 'cultural digirati'. New digital products innovated for digital markets gives creative enterprises new business models and income streams, and this is essential to encourage, but only alongside providing appropriate support to build resilience to digital disruption. Incumbent organisations need help to establish business models which guarantee that their message - the cultural and creative content - does not get eaten by the medium (McLuhan, 1964) - the ever fattening digital publishing platforms, telecommunications companies providing broadband, and social media enterprises re-sharing through their networks. This can be achieved: *The AmbITion Approach*'s framework is now validated to work with the traditional creative sector.

Appendix 18: Figures repeated in larger scale for readability

Figure 5.2.2.2: Word tree showing key words in relational context

Word	Length	Count	Weighted Percentage (%)▽	Similar Words
digital	7	236	2.14	digital, digitally
developments	12	214	1.94	develop, developed, developer, developing, development, developments
organisations	13	150	1.36	organisation, organisational, organisationally, 'organisationally', organisations, organised
works	5	136	1.23	work, 'work, worked, working, works
audience	8	88	0.80	audience, audiences, audiences'
systems	7	80	0.73	system, systems
need	4	78	0.71	need, needed, needs
support	7	76	0.69	support, supported, supporters, supporting, supportive, supports
staff	5	74	0.67	staff
community	9	73	0.66	communicate, communicates, communicating, communication, communications, communities, community
engage	6	73	0.66	engage, engaged, engagement, engaging
technology	10	69	0.63	technological, technologically, technologies, technology
current	7	68	0.62	current, currently
project	7	67	0.61	project, projection, projects
business	8	65	0.59	business, busy
plans	5	65	0.59	plan, planned, planning, plans
online	6	63	0.57	online

Figure 5.2.2.3: Word frequency count table

Figure 5.4.2.1: Review of the Capacity code

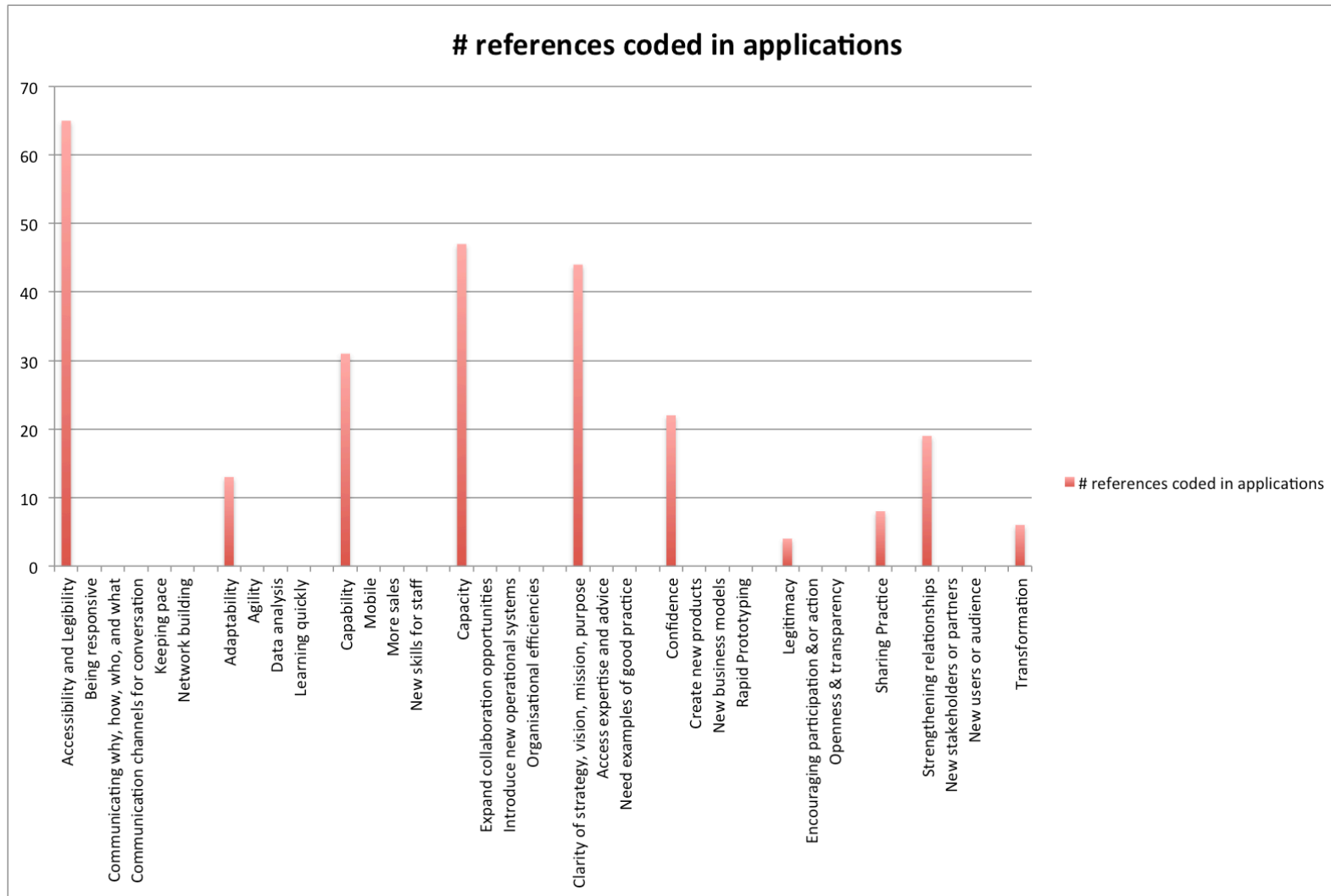**Figure 5.4.2.2: Overview of density of reference coded in the business case applications dataset**

Figure 5.4.4.1: Results of a matrix query to show patterns in the codes
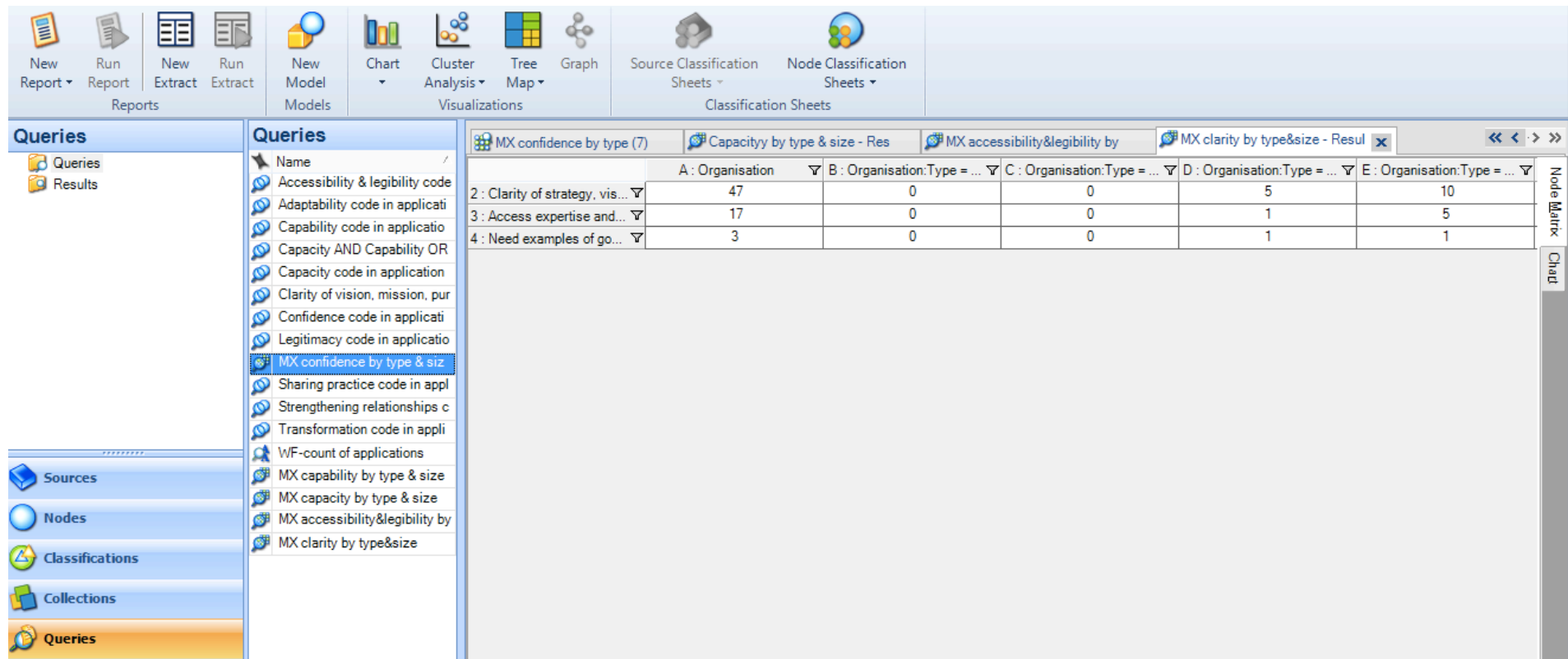
Figure 6.1.3.2: Example of spreadsheet tallying results of documentation review

Organisation	Actions (new digital practices) evident in case study	# number of actions	Research/theoretical learnings evident in case study	# number of theoretical learnings	# total actions and theoretical learning (research)outputs	# number of design practices utilised (e.g. engagement blueprint, stakeholder map)	# number of modern management consultancy tools used (e.g. Business Model Canvas - BMC, case study visits)	# number of creative practices used (e.g. customer journey stories, brainstorming, rich media case study production)	# total design practicess, modern management consultancy and creative practice methods used	# total actions, research outputs, design practices, modern management consultancy, and creative practices achieved
Off the Rails Arthouse	CRM, CMS, website, hosting, cloud services, online payments, digital archiving, social media, broadband, staff digital skills training, online book keeping, e-newsletter, SEO & analytics	13	Audited activities. Digital strategy developed with brainstorm and BMC, analysed market and customers with engagement blueprint, identified our resources and capacity, evaluated operating practices. Revisited vision and mission. We learned quite a lot about each other's strengths, weaknesses, hopes and fears - this has pulled us together more strongly as a group.	7	20	1	1	2	4	24
Art in Healthcare	Adressed problems and concerns in our digital platform through a new website(Comms), CRM, and database management system	3	Searched out inspiration and opportunities from other AmbITion case studies. Audited our activities. Defined stakeholders and customers via engagement blueprint. Digital mapping exercise and digital strategy developed using BMC and brainstorm.	4	7	1	2	2	5	12

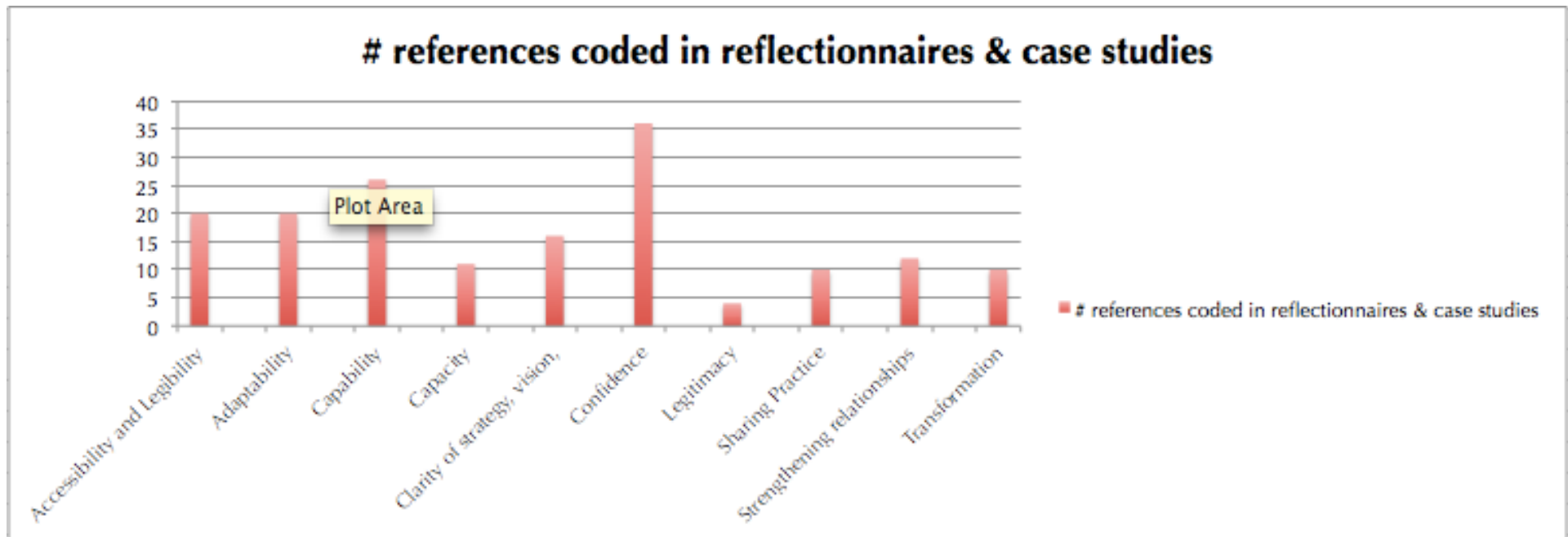**Figure 6.5.2.1: Chart showing number of references coded in the reflectionnaires and case studies**

references coded in reflectionnaires & case studies

Figure 6.3.1.1: Thematic analysis' coding structure mapped to the PhD enquiry's research questions
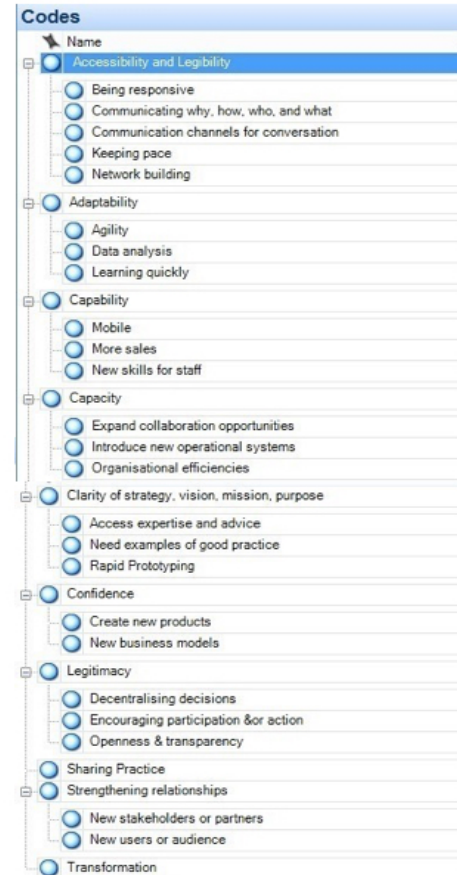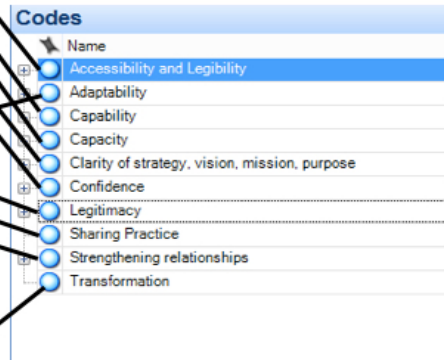
Figure 7.1.3.1: Description of the actions and research outputs achieved by organisations that transformed

Organisations experiencing transformation	Actions (new digital practices) evident in case study	# number of actions	Research/theoretical learnings evident in case study	# number of theoretical learnings	# total actions and theoretical learning (research) outputs
Off the Rails Arthouse	CRM, CMS, website, hosting, cloud services, online payments, digital archiving, social media, broadband, staff digital skills training, online book keeping, e-newsletter, SEO & analytics	13	Audited activities. Digital strategy developed with brainstorm and BMC, analysed market and customers with engagement blueprint, identified our resources and capacity, evaluated operating practices. Revisited vision and mission. We learned quite a lot about each other's strengths, weaknesses, hopes and fears - this has pulled us together more strongly as a group.	7	20
Art in Healthcare	Adressed problems and concerns in our digital platform through a new website(Comms), CRM, and database management system	3	Searched out inspiration and opportunities from other AmbITion case studies. Audited our activities. Defined stakeholders and customers via engagement blueprint. Digital mapping exercise and digital strategy developed using BMC and brainstorm.	4	7
Stills Ltd	Digital communications training, CRM, website, cloud based server and digital archive storage/backup	5	Business audit, analysis of stakeholder needs via engagement blueprint, back office audit, future business requirements via brainstorm, digital mapping, development of new digital strategy via BMC.	6	11
Pitlochry Festival Theatre	Video content creation, digital programmes, server virtualisation, BYOD	4	Digital audit, customer and stakeholder analysis by engagement blueprint, digital strategy developed using BMC and brainstorm, implementation plan.	3	7
macrobert Arts Centre Ltd	Website integrated with cloud based ticketing system. Simulcasting hardware implemented.	2	Digital audit, customer and stakeholder audit via engagement blueprint, digital strategy and business plan and roadmap via BMC and brainstorm. Feasibility study around simulcasting.	3	5
Wee Stories	Website and social media.	2	Digital audit, digital strategy and business case for further developments developed via brainstorm, implementation plan.	3	5
Uist Wool	Podcasting	1	Customer segmentation via engagement blueprint, vision and mission revisited during brainstorm for digital strategy via Business Model Canvas, implementation plan, budgets and tech specs	5	6
National Youth Choir of Scotland (NYCoS)	CRM system, website, social media,	3	Stakeholder mapping via engagement blueprint, digital audit, techplan, tech spec, digital strategy via brainstorm.	5	8
Creative Stirling CIC	Mailchimp e-news letter, CiviCRM, CMS driven website, shared office files, cloud backup (MS 365), EPS, Paypal, room/even booking system	8	Customer and market review via engagement blueprint, digital audit, digital strategy document developed through brainstorming and revisiting vision and mission, tech spec, fundraising plan, implementation plan, new vision and mission	7	13

Figure 7.2.1.2 and 8.2.1.2: A robust research and action framework for the analysis of the quality, validity, and change achieved by action research based development programmes

Anderson & Herr's Goals of Action Research and Validity Criteria (2005)		Coghlan & Rashford's	AmbITion Approach research tools	Research question
Goals of Action Research	Quality/Validity criteria	Type of change achieved (2006)	Data gathered/evidence	
Generation of new knowledge	Dialogic and process validity	Third order	Are rich media case studies created? How much are case studies viewed online and shared in live environments?	2&3. What new practical and theoretical knowledge is generated? Could the concepts, methodologies and toolkits be a framework for business transformation in a digital age?
Achievement of action-oriented outcomes	Outcome validity	First order	Reflectionnaire results, rich media case study review	1. To what extent do enterprises that engage with The AmbITion Approach adapt to deal with disruptive digital technologies?
The education of both researcher and participants	Catalytic validity	Second order	How many AmbITion Approach organisations go on to apply for other funds?	1&2. What new practical and theoretical knowledge is generated & To what extent do enterprises that engage with The AmbITion Approach adapt to deal with disruptive digital technologies?
Results relevant to local setting	Democratic validity	First order	Business and Implementation Plans, rich media case study	1. To what extent do enterprises that engage with The AmbITion Approach adapt to deal with disruptive digital technologies?
A sound and appropriate research methodology	Process validity	Third order	Triangulation of different data, showing the impact from a number of different cases and a number of different data sets	3. Could the concepts, methodologies and toolkits be a framework for business transformation in a digital age?

Figure 8.2.2.1: The theoretical and conceptual framework of *The AmbITion Approach* as a schematic

Organisations looking to digitally develop…

1. Apply *The AmbITion Approach*'s

concepts of PAR (team+researcher) &   methods &   toolkits

2. Look to **increase** digital -

Adaptability and Legibility
Capability
Capacity
Clarity of strategy, vision, mission, purpose
Confidence
Legitimacy
Sharing Practice
Strengthening Relationships
Transformation

3. Apply the approach to
SOME
areas of business

4. Achieve # action and
research outputs
<7.43

5. Use # design & creative
practices & modern
management
consultancy tools
<2

3. Apply the approach to
ALL
areas of business

4. Achieve # action and
research outputs
>9.11

5. Use # design & creative
practices & modern
management
consultancy tools
>3.56

= Change
(first order)

= Adaptation
(second order)

= Transformation
(third order)