

1 Article type: Original paper

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7 **Youth digital participation: measuring** 8 **social impact**

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12

13 **Abstract**

14 Current scholarly debate around digital participatory youth projects and
15 approaches to their evaluation are examined in this article. The analysis of the literature
16 presented here reveals (1) an over-reliance on traditional evaluation techniques for such
17 initiatives, and (2) a scarcity of models for the assessment of the social impact of digital
18 participatory youth projects. It is concluded that the challenges and limitations of social
19 impact evaluation practice in digital participatory youth projects should be addressed
20 through the adoption of alternative, participant-centred approaches. These issues are
21 discussed in reference to a current ongoing study that seeks to identify solutions for
22 enhancing social impact evaluations of participatory digital initiatives by young people.

23 **Keywords**

24 digital participation, digital youth, youth participation, social impact, social impact
25 evaluation, participatory evaluation

26 **Introduction: evaluating the social impact of youth digital** 27 **participatory projects**

28 The social impact of digital youth participation and a scarcity of models
29 for its assessment are examined in this article. The main questions addressed here are: 1)
30 What is known about the value of youth digital participation? 2) What methods are
31 currently used to analyse young people's relationship with digital technologies? 3) To
32 what extent could the adoption of alternative, participant-centred approaches to
33 evaluation alter the current assessment practice of digital youth participatory projects?

34

35 Through gaming, social media, email, photography, and film making, youth
36 workers across Europe have introduced digital technologies into their practice (Harvey,
37 2016). Digital media are no longer considered merely additional or entertaining elements,
38 but core communication and engagement tools used by young people. However, while
39 many youth organisations have successfully implemented digital technologies in their
40 work, they also claim that measuring the social impact of youth digital initiatives has
41 become increasingly difficult, with youth practitioners asking questions like: “How do
42 you measure young people’s [digital] skills if you don’t know yourself what the [digital]
43 skills should be (as older person!)” (#NotWithoutMe, 2017).

44 Whilst the notion of digital youth participation has emerged as an important topic
45 among research community, there is currently limited understanding of practical ways to
46 measure the impact of youth digital participatory projects. Scholars (Mackril and Ebsen,
47 2017) and youth practitioners alike (#NotWithoutMe, 2017) have called for further
48 research into social impact evaluation of interactions between young people and digital
49 technologies. This article addresses this research gap by reviewing literature from the
50 areas of youth studies, youth participation, digital media, information science, and social
51 impact assessment and evaluation. The article discusses publications dated from the
52 1990s to 2017 and includes both academic publications and practitioner documentation
53 and reports. Additionally, it makes two actionable recommendations relevant to
54 practitioners seeking to address this gap in their work with young people.

55 The paper first gives a brief overview of the recent history of youth participation
56 and digital youth participation. Here, the terminology used to define young people’s
57 relationship with the digital world is analysed (Table 1). In the context of this article,
58 digital youth participation is conveyed as young people’s active engagement in the
59 “mediated world shaped by multimodal, interactive, convergent, and networked media”
60 (Livingstone, 2012:1). Social impact analysis and evaluation terminology in the academic
61 literature are also examined, followed by a brief overview of the history of social impact
62 assessment and its progressive shift from technocratic to participatory methodologies.
63 This provides an overview of how the role of evaluation participants has evolved from
64 being subjects of the process to becoming active evaluation partners. Consequently,
65 appropriate participatory methodologies to assess the impacts of youth-centred initiatives
66 are identified. Due to the continuing formation of new digital media in the 21st century, it
67 is argued that young people should be considered as experts of their own digital
68 experiences and play an active role in evaluation. The concept of participatory evaluation
69 is considered in the context of digital youth participation, and five considerations for the
70 use of participatory evaluation of digital youth participation are identified: 1)
71 Participation, 2) Knowledge co-creation, 3) Power dynamics, 4) Learning, 5) Play.

72 Based on the literature review and analysis, two key recommendations for social
73 impact evaluation of youth digital participatory projects are presented. Firstly, it is
74 advocated that conscious recognition of young people as the experts of their own
75 participatory digital experience could aid the current evaluation process. This is
76 particularly important in digital youth settings, where young digital citizens’ expertise
77 and unique perspectives can easily be undervalued. Secondly, the paper emphasises the
78 importance of developing more holistic and participant-centred approaches to social
79 impact evaluation of youth digital participation. Holistic and reflective assessment

80 processes might not only improve the evaluation data for project organisers, but also
81 enhance the experience for young participants themselves. Most importantly, considering
82 the complex and multi-layered nature of digital youth participatory projects, holistic
83 methods might provide more insightful perspectives and analysis, and as a result,
84 empower young people to reclaim their voices in the discourses around the value of
85 digital youth participation.
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88 Youth participation in the digital age: origins and 89 terminology

90 While various definitions of youth can be found in literature, this article adopts
91 that of the European Union, which defines young people as those aged 15-29 (Coyette et
92 al, 2015). A considerable amount of literature has been published on youth participation
93 (Checkoway and Gutiérrez 2006; Checkoway and Richards-Schuster 2005; Egbo 2012.;
94 Head 2011; Loncle et al. 2012; Print 2007; Richards-Schuster and Pritzker 2015). Youth
95 participation is viewed globally as a right protected by the Convention of the Rights of
96 the Child, which was established in 1959, and served as the basis for the Convention of
97 the Rights of the Child (CRC) adopted by the United Nations in 1989. Articles 12-15 are
98 concerned with the specific rights of young people to participate, voice their opinions,
99 freely assemble, and engage in discussions relating to their well-being (McMillan and
100 Simkiss, 2009). Young people are therefore perceived not only as vulnerable members of
101 society, but as equal contributors and potential agents of change (Richards-Schuster and
102 Pritzker, 2015). Meaningful involvement of young citizens can lead to social change, thus
103 “helping people to participate must be not restricted to asking their options” (Loncle et
104 al., 2012:3). Meaningful participatory initiatives aim to enhance social competence and
105 responsibility, community development, and political self-determination (Hart, 1992).
106 The process of shared decision-making is the key element of participation (Hart 1992;
107 Loncle et al., 2012; Checkoway & Gutiérrez, 2006). According to the European
108 Commission, it is vital to ensure that young people are “involved in the decisions which
109 concern them and, in general the life of their communities” (Loncle et al., 2012, p.2).

110 The concept of ‘youth participation’ has further developed since the early 2000s
111 in a time during which young people's everyday lives have become more heavily
112 influenced and shaped by “multimodal, interactive, convergent, and networked media”
113 (Livingstone, 2010:1). The changing dynamic of relationships between young people and
114 digital technologies has provided a fruitful stream of research for a number of scholars
115 (Boyd 2014; Buckingham 2008; Ito et al. 2013). They have observed that young people
116 in a digital era are no longer simply passive consumers of information, but are instead
117 active digital participants, makers, and ‘doers’ (Ito et al., 2013:6), who operate in an
118 environment where digital skills have become a necessity. It has been argued that so-
119 called *digital youth* (Ito et al., 2009) are characterised by “non-traditional and innovative
120 information behaviour, including activities related to creative production and sharing”
121 (Koh, 2013: 1827). To examine evolving relationships between youth and technology, and
122 to gain a better understanding of the notion of digital youth participation, scholars have

123 offered numerous approaches with associated terminology (Cohlmeyer, 2014; Ito et al.
124 2013; Mihailidis, 2015; Quinlan, 2016).

125 To understand young people’s relationship with the digital world, Ito et al. (2009)
126 have proposed the term *digital youth*, which broadly summarises “the lives of young
127 people in the contemporary society” (Erstad, 2012: 25). Emphasising the empowering
128 effect of digital technologies on youths’ lives, Ito et al. claim that these mediated forms
129 of communication allow the younger generations to actively participate in public debate,
130 amplify their voices, and influence decision making (2015:16). Thus, it can be argued
131 that digital technologies have enhanced the traditional forms of youth participation by
132 providing innovative and interactive tools to connect and engage with peers globally.
133 Further, Ito et al. argue that the digital world provides a dynamic infrastructure where
134 young citizens can “exercise their citizenships and create frameworks for activism”
135 (2015:10).

136 Elsewhere, Cohlmeyer (2014) suggests the notion of *digital youth work*.
137 Cohlmeyer’s definition suggests that *digital youth work* consists of four components:
138 youth work traditions, digital media and technology, youth workers, and young people
139 (Cohlmeyer, 2014). This term has been practically implemented in the context of youth
140 development by organisations such as YouthLink Scotland (“Youth Link Scotland,”
141 2017) and Erasmus+ Youth in Action (Kriauciunas, 2016). The processes of learning and
142 creation have also been analysed by Quinlan (2016) who adopted the term *digital making*.
143 In Quinlan’s work emphasises active knowledge acquisition, while producing and
144 learning digital artefacts (Quinlan, 2016). Likewise, the concept of
145 knowledge/information seeking and attainment have been highlighted by the scholars
146 behind the connecting *learning* framework (Ito et al., 2013). The core element of this
147 framework to education is to deploy digital technologies to “enable youth who otherwise
148 lack access to opportunity” (2013: 8). The scholars behind the *connected learning*
149 framework have claimed that to equip youth with skills for the 21st century, it is essential
150 to offer proactive and interest-driven opportunities for learning. Likewise, scholars cited
151 here (Cohlmeyer, 2014; Mihailidis, 2016; Quinlan, 2016; Ito et al., 2013) have
152 acknowledge the importance of youth participation in the digital era. As illustrated by Ito
153 et al.: “Young people are contributing to the health and growth of civic collective, jointly
154 produced stories, and real world social change” (2013:48). Finally, Stornaiuolo and
155 Thomas (2017) have analysed the notion of *youth digital activism*. Debating the role of
156 digital technologies in youth’s lives, Stornaiuolo and Thomas (2017) examined the
157 prominence of using online tools when fighting for social justice. Finally, the term
158 *makers space* has been applied to describe “a collaborative work space inside a school,
159 library or separate public/private facility for making, learning, exploring and sharing that
160 uses high tech to no tech tools” (Makerspaces.com, 2017). Table 1 sets out a comparative
161 assessment of these terms.
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Name	Source	Typical Activities	Focus
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Digital Making	Quinlan, 2016	Creates something using digital technology. Learns about how the technology works.	Technology learning
Youth Digital Activism	Stornaiuolo and Thomas, 2017	Information creation and information sharing using digital technologies.	Advocacy
Connected Learning	Ito, Gutiérrez, Livingstone, Penuel, Rhodes, Salen, Schor, Sefton - Green & Watkins, 2014	Supports understanding of using new media in educational settings. Highlights digital media as learning enhancer.	Learning, social-equality
Digital Curation	Mihailidis, 2016	Participatory creation of digital content. Using online communication platforms.	Storytelling, communication, digital literacy
Makerspace	www.makerspacers.org, 2017	“a collaborative work space inside a school, library or separate public/private facility for making, learning, exploring and sharing that uses high tech to no tech tools” (makerspacers.org, 2017)	Learning, experimentation, digital and non-digital tools
Digital Youth Work	Cohlmeyer, 2013	Traditional youth work practice including digital media and technology.	Youth development, learning, informal education

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164 **Table 1. Comparative assessment of terms describing young people’s interactions**
165 **with digital media**

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A variety of terms describe young people’s digital lives have been identified in the literature (Cohlmeyer, 2013; Ito et al. 2013; Mihailidis, 2016; Stornaiuolo & Thomas, 2017; Quinlan, 2016), here a necessarily broad, but all-encompassing definition of digital youth participation is adopted. Digital youth participation is perceived as a fusion of the traditional forms of youth participation (Checkoway & Gutiérrez, 2006; Checkoway &

173 Richards-Schuster, 2003; Egbo, 2012; Head, 2011) and digital forms of youth
174 engagement (Cohlmeyer, 2013; Ito et al. 2013; Mihailidis, 2016; Quinlan, 2016). In line
175 with Livingstone's (2012) research, digital youth participation is defined as young
176 people's active engagement in the "mediated world shaped by multimodal, interactive,
177 convergent, and networked media" (Livingstone, 2012:1). Examples of digital youth
178 participatory projects may include informal educational initiatives such as digital
179 communities and forums, as well as community and after school programmes (Lemke et
180 al., 2015). Digital youth participatory projects aim to provide younger participants with
181 collaborative and interactive experiences. Therefore, the activities undertaken vary from
182 creative use of digital storytelling as a form of self-expression (STEP, 2016), all the way
183 to advocacy-focused actions such as online crowdsourcing, petitions or citizen journalism
184 (Adobe Youth Voices, 2017). Digital technologies might be used primarily as a
185 communication tool, and here online groups, texting and instant messaging have provided
186 a focus. Due to "the multimodal, convergent and networked" (Livingstone, 2012:1)
187 nature of the digital youth world, it is impossible to cover all existing tools and emerging
188 tools deployed in youth participation. However, examples of tools include smartphones,
189 laptops, digital cameras, computers or tablets.

190 The value of digital media to young people: discussion on 191 the impact of youth digital participation

192 Digital media are frequently cited as tools of empowerment for young people
193 (Erstad, 2012; Livingstone and Sefton-Green, 2016). For example, it has been argued that
194 young people can alter the ways in which "people live, work, play, relate to another,
195 organise to meet their needs, and generally cope as members of society" (Burdge and
196 Vanclay, 1995:59) through their active participation in the digital world. In addition,
197 when engaging with digital media tools, young people may contribute towards the
198 formation of 'social impact' - when conceived as "all social and cultural consequences to
199 human populations of any public or private actions that alter the ways in which people
200 live, work, play and relate to another, organise and meet their needs, and generally cope
201 as members of society" (Burdge and Vanclay, 1995:59). For example, they can influence
202 "health and growth of civic collective, jointly produced stories, and real world social
203 change" (Ito et al., 2013:48). Vital youth contributions to the public debates on global
204 warming, equal rights, and poverty have been delivered by young digital storytellers,
205 artists, and activists (Adobe Youth Voices, 2017; UNCTAD, 2017). In addition, the
206 digital world furnishes environments in which young people can enjoy autonomy to learn
207 and network (Ito et al., 2013). Finally, it has been argued that the enhancement of young
208 people's understanding of the concept of 'self', and societal interactions, can result from
209 their digital participation (Buckingham, 2008; Robards and Bennett, 2014).

210 However, scholars have equally emphasised the risks and dangers associated with
211 digital youth participation (Aiken, 2017; Buckingham, 2008; Herring, 2008). For
212 example, Buckingham (2008) has warned that it is vital not to 'romanticize' the
213 emancipating qualities of the digital world. It has been argued that the cyber world
214 provides young people with an "illusionary freedom and autonomy" (Herring, 2008:73),
215 where adults manage and capitalize on young people's digital participation. Elsewhere,
216 issues such as online privacy, peer-pressure, and self-representation have been examined

217 (Aiken, 2016). Aiken argues that cyber self-obsession and associated, constant “updating,
218 making friends, making connections, gaining followers, getting likes, and being tagged”
219 (2016:174), can lead to identity confusion among teenagers. A recent report published by
220 the National Society for the Prevention of Cruelty to Children (Bentley, O’Hagan, Raff
221 and Bhatti, 2016), notes that counselling support related to young people’s online activity
222 has increased, with cyber bullying related support increasing by 13 percent between
223 2014-2016, and a 15 percent increase related to ‘sexting’ in from 2014 to 2016 (Bentley
224 et al., 2016:41).

225 While the value of digital media to young people has been increasingly debated in
226 the literature, scholars have equally argued that the methods used to evaluate youth
227 participation are primarily technocratic (Checkoway and Richard-Schuster, 2008). They
228 have also called for moving beyond “observation, measuring, testing and enumerating” of
229 young people by external evaluators (Checkoway and Richard-Schuster, 2008:24), to
230 understand a more meaningful and inclusive evaluation process. Below is an analysis of
231 literature on social impact evaluation, including scholarly debate on both technocratic and
232 participatory approaches to its assessment (Adams and Garbutt, 2008; Akpofure and
233 Ojile, 2003; Becker et al. 2003; Belfiore and Bennett, 2007; Burdge, 2003; Cousin and
234 Whitmore, 1998; Douthwaite et al., 2007; Dufour, 2015; Esteves et al., 2012; Gawler,
235 2005; Lockie, 2001; Morris et al., 2011; Rietbergen-McCracken and Narayan, 1998;
236 Vanclay, 2003).

237

238 Social Impact Analysis and Evaluation: from technocratic 239 to participatory

240 A considerable amount of literature has been published on the importance of
241 Social Impact Assessment (SIA) and evaluation concerning adult and youth groups (for
242 example Adams and Garbutt, 2008; Akpofure and Ojile, 2003; Becker et al. 2003;
243 Belfiore and Bennett, 2007; Burdge, 2003; Cousin and Whitmore, 1998; Douthwaite et
244 al., 2007; Dufour, 2015; Esteves et al., 2012; Gawler, 2005; Lockie, 2001; Morris et al.,
245 2011; Rietbergen-McCracken and Narayan, 1998; Vanclay, 2003). The field of Social
246 Impact Assessment originated in the 1950s and was primarily incorporated into the
247 standard guidelines for Environmental Impact Assessment in the United States (Esteves
248 et al., 2012; Pant, 2015). In 1969, the National Environmental Policy Act embedded SIA
249 as a legal requirement into their project implementation processes (Esteves et al., 2012).
250 Consequently, over the years SIA became a core element of community development
251 initiatives and was adopted by many international organisations (Adams and Garbutt,
252 2008; Chambers, 1994; Douthwaite et al., 2007; Gawler, 2005).

253 However, as SIA frameworks gained more popularity, practitioners began
254 recognising some of the methodological issues affecting the practice (Adam and Garbutt,
255 2008; Esteves et al. 2012; Lockie, 2001; Pant, 2015; Vanclay, 2003). Firstly, SIA
256 techniques were critiqued as being mainly technocratic and solely serving organisations
257 in meeting their funding criteria and managements’ expectations (Adams and Garbutt,
258 2008). For instance, Lockie argued that technocratic evaluation methods are mainly about
259 “measuring, predicting and reporting” of the impact (2001:278). In addition, attempts to
260 foresee the outcomes of an intervention not only impose “unstated goals and values”, but

261 also “pre-empt the outcomes of debates and decision making processes” (Lockie, 2001:
262 281). Secondly, scholars claim that SIA places too much emphasis upon setting specific
263 social impact goals and objectives, instead of trying to understand the dynamic of the
264 social change as a collective and individual process (Adams and Garbutt 2008, Becker et
265 al. 2003; Belfiore and Bennett, 2007; Burdge, 2003; Esteves et al., 2012). Belfiore and
266 Bennett claim that “considerably more time and resources have been spent on looking for
267 ‘proof’ of impacts than actually trying to understand them” (2007:137). Another problem
268 with SIA is that since it is usually considered as the final, and often the least well-
269 invested stage of project development, it is used to “only just meet the minimal
270 standards” (Esteves et al., 2012).

271 Since the 1970s, as a response to what had come to be regarded as a problematic,
272 technocratic methodology, SIA professionals and theorists began to search for a more
273 inclusive and holistic approaches to monitoring and evaluating social change (Adam and
274 Garbutt 2008; Akpofure and Ojile 2003; Becker et al. 2003; Burdge, 2003; Douthwaite et
275 al., 2007; Esteves et al. 2012). It was agreed that to fully comprehend the complexity of
276 social impact, it was desirable to move beyond “narrowly conceived ideas of
277 performance measurement and target setting” (Belfiore and Bennett 2007:138). SIA
278 professionals collectively opposed to the implementation of technocratic approaches in
279 the evaluation process called for “a more adequately ‘socialised’ impact assessment”
280 (Douthwaite 2007:279). As a result, the SIA methodology became more concerned with
281 the evaluation process itself, not just the resulting outcomes.

282 When defining good SIA practice, Esteves et al., (2012) emphasise the active role
283 of participants in the process. The aim of an effective SIA is to provide stakeholders a
284 safe environment in which their needs and aspirations can be analysed and understood
285 (Esteves et al., 2012). This shift towards a more community-centred approach introduced
286 new core attitudes in the SIA community (Vanclay, 2003). Consequently, SIA was
287 perceived not solely as a tool used to assess goals and objectives, but as a “process of
288 managing the social issues associated with planned interventions” (Vanclay, 2006). The
289 emphasis on the process was further reflected in the development of more participatory
290 evaluation methodologies. Numerous commentators agree that active community
291 collaboration in social impact assessment provides a more critical and informed view of
292 the process (Adams and Garbutt, 2008; Becker et al., 2003; Cousins and Whitmore, 1998;
293 Douthwaite et al., 2007; Fetterman and Wandersman, 2005; Innovation Centre for
294 Community and Youth Development, 2005; Morris et al., 2011; Rietbergen-McCracken
295 and Deepa Narayan, 1998; Pant, 2015).

296 Likewise, in the fields of both Social Impact Assessment and Youth Participation,
297 practitioners have recognised a participatory approach as a more appropriate
298 methodology to assess impacts of youth centred initiatives (Checkoway and Richard-
299 Schuster, 2003; Gawler, 2005; Sabo, 2003; Innovation Centre for Community and Youth
300 Development, 2005; Walker 2007). Checkoway and Richard-Schuster claim that “youth
301 participation in evaluation community research is desirable”, and there is a need for more
302 knowledge of this inclusive approach to impact assessment (2003:22). Consequently,
303 those who research issues related to young people called for an alternative evaluation
304 approach, which effectively fosters social equity and validates youth expertise in the
305 process (Checkoway and Richard-Schuster, 2003; Sabo, 2003; Walker, 2007).
306 Nevertheless, despite the growing popularity of Participatory Evaluation as an inclusive

307 SIA model there were some arguments that young people were rarely involved in the
308 process (Flores, 2008). While in recent years an increasing number of youth participatory
309 evaluation projects can be noted (for example Samuelson et al. 2013; Duke et al., 2016),
310 there are is limited knowledge of how this particular SIA model could be used in digital
311 youth context.
312

313 Measuring social impact with young digital participants: 314 current social impact evaluation methods and their 315 limitations

316 Despite the extensive scholarly analysis on participatory evaluation, researchers
317 keen to explore the social impact of technologies on young people have mainly adopted
318 functional, but traditional, research approaches. Thus, the social significance of youth
319 digital participation is primarily measured with the use of tools such as surveys and
320 interviews (Quinlan 2015; Stevens, Gilliard-Matthews, Dunaev, Woods and Brawner,
321 2016), case studies (Hyder, 2017), focus groups (Ito et al., 2008) and/or ethnographic
322 observations (Livingstone and Sefton-Green, 2016). While these evaluation processes
323 and their outcomes provide vital data on the relationship between youth and technologies,
324 they also have clear limitations, most notably in respect to the power dynamics within the
325 study and participation of data subjects, measurement metrics, and scalability.

326 Since digital technologies have become vital elements of young people's
327 everyday lives, youth development practitioners (Wilson, 2017; #NotWithoutMe, 2017)
328 and researchers (Buckingham, 2008; Erstad, 2012; Livingstone, 2012) have struggled to
329 find ways to holistically examine and measure the social impact of young people's digital
330 participation. Several commentators (for example Mackril and Ebsen, 2017) noted that
331 there are currently no evaluation methodologies or approaches which specifically
332 examine the social impact of youth digital participation .

333 Livingstone et al. have argued that it is yet unknown if "online opportunities may
334 (or may not) result in tangible benefits" (2015:14) to younger generations. Elsewhere, in
335 the context of implementation of digital elements into youth social work, Mackril and
336 Ebsen have stated "there is still limited research on how to assess the impact of digital
337 technologies" on youth work (2017:1). Additionally, Ito et al. have highlighted "a lack of
338 literature that discusses and evaluates the impact of youth-led social change" (Ito et al.,
339 2015).

340 Young people have been increasingly collaborating in digital participatory
341 settings (Fitton et al., 2016). Due to their unique and often effortlessly gained digital
342 expertise, the generations of "digital natives" (Prensky, 2009) have become active actors
343 in many digital co-design and co-production of products (Dell and Kumar, 2014; Bucciari
344 and Molleson, 2015) as well as digital policies (5Rights, 2017). Unfortunately, most of
345 these works "do not explore the impact the [collaborative] process has on its participants,
346 [but] rather focus on the process itself" (Guha et al., 2010:199). As the area of youth
347 digital participation has become extensively researched, the information concerning the
348 measurement of its social impact is still limited. Guha et al. has supported this argument
349 by claiming:

350
351 “[There is] a wealth of information about children’s technology and the design
352 process to create it, there is a dearth of information regarding how the children
353 who participate in these design processes may be affected by their participation.”
354 (2010:198)

355
356 Likewise, practitioners within youth organisations have acknowledged the
357 possible transformative power of digital technologies. This is evident in a number of
358 implementations located in the United Kingdom (Young Scot, 2017; Time to Shine
359 Digital, 2015; STEP, 2016). However, as the use of digital technologies becomes
360 increasingly common, practitioners also struggle to capture and analyse the social impact
361 of such mediated initiatives (Bucciari and Molleson, 2015; Wilson, 2017). For instance, a
362 recent British Carnegie Trust’s digital youth inclusion project outlined social impact
363 evaluation as having key challenges: “Let’s acknowledge that measuring the impact in
364 learning digital skills is tough!!” (#NotWithoutMe, 2017). Here, digital youth inclusion
365 practitioners have declared that frameworks focusing solely on the analysis of digital
366 skills (Just Economics, 2015) do not provide a holistic representation of the social change
367 that occurs during the project. Consequently, youth development practitioners agree that
368 new tools or approaches need to be developed to measure the social impact of youth
369 digital participation (#NotWithoutMe, 2017).

370 A progressive understanding of the social impact of the interactions between
371 young people and digital technologies is now advocated by researchers and practitioners
372 alike (Araya and McGowan, 2016; 2017, Livingstone and Sefton-Green, 2016). This also
373 applies to the means of measuring social impact, regarded as a complex and under-
374 developed area that merits further research (Ito et al., 2013; Livingstone, Mascheroni and
375 Staksrud, 2015).

376 Youth participatory evaluation’s key areas for 377 consideration: the adoption of alternative, participant- 378 centred approaches to digital youth projects evaluation

379
380 Acknowledging that there is “no single tool or method that can capture the whole
381 range of impacts or that can be applied by all” (Dufour, 2015:5), identifies key areas of
382 consideration for effective evaluation processes are identified here. The following points
383 derive from the literature on youth participation, digital youth and social impact
384 evaluation, in both adult and youth settings. This cross disciplinary analysis allows for
385 the identification of re-occurring themes in the debates examining the value of
386 participatory experiences, in both digital and traditional forms. These five areas for
387 consideration in youth participatory evaluation are Participation, Play, Learning,
388 Knowledge Co-creation, and Power Dynamics (Figure 2).

389 Participation

390 One of the most significant changes in SIA has been implementing participatory
391 and inclusive monitoring and evaluation methods into practice. Lockie highlights the
392 importance of ‘shared understanding of problems and collective efforts to solve them’
393 (Pant, 2015:109). It is vital that the SIA process goes beyond a tokenistic ‘public relations
394 exercise’ (Lockie, 2001:278). The International Principles for Social Impact Assessment,
395 created by the International Association of Impact Assessment, identify participation as a
396 key element of effective evaluation framework. One of the core values the SIA
397 community advocates is that “people have a right to be involved in the decision making
398 about the planned interventions that will affect their lives” (Vanclay, 2004:9).
399 Additionally, Akpofure, and Ojile (2003) claim that by adapting participatory and
400 interactive methodology in social impact assessment, projects can improve their social-
401 economic results (p.212).

402 The shift towards a more inclusive methodology is also noted in the areas of
403 youth participation and social impact evaluation (Checkoway and Richard-Schuster,
404 2003; Gawler, 2005; Holden, et al., 2004; Sabo, 2003; Flores, 2008; Walker, 2007). To
405 more effectively address the needs of youth, scholars call for “a radical move to flatten
406 hierarchies” and development of a more participatory evaluation system (Flores
407 2008:13). Collaborative methodologies allow youth to define and examine their own
408 projects and create their own methods to measure their development (Checkoway and
409 Richard-Schuster, 2003). It has been argued that only through active participation in the
410 social impact assessment processes are young people able to critically analyse and reflect
411 upon their experience and its social impact. As Jennings et al. suggest, youth participation
412 is not just concerned with “adults allowing children to share their perspective” (2006:23),
413 but nurturing an environment where young people can actively and independently
414 implement social change. To better grasp the holistic value of youth collaborative
415 projects, researchers need to move beyond the autocratic perception of young people as
416 “human potential, moulded and shaped by positive and negative influences” (Percy-
417 Smith & Thomas, 2010: XXI).

418 Knowledge Co-creation

419 One of the key criticism of traditional SIA is that its top-down methods “have
420 largely failed in the exercise of social explanations and prediction” (Lockie 2001:281).
421 Technocratic methods implemented by external evaluators might fail to consider the
422 unique knowledge of the participants of the evaluated initiatives. To address this issue,
423 The International Principles for Social Impact Assessment outline the importance of local
424 knowledge in their SIA Core Values (Esteves et al., 2012). The International Association
425 of Impact Assessment suggests that a community’s expertise is a vital element of an
426 evaluation process, and can positively affect a project’s design, implementation, and
427 evaluation (Vanclay, 2003). Inclusive and participatory methodologies consequently
428 influence “a common and shared understanding of problems and collective efforts to
429 solve them” (Pant, 2015:109). Becker et al. suggest that “not only [do] group members
430 identify more diverse ideas, but also their identification of issues reflect a wider range of
431 perspectives and greater cognitive processing” (2003:373). Consequently, due to this
432 unique expertise and point of view, community members are defined as the evaluation
433 experts (Innovation Centre for Community and Youth Development, 2005).

434 To gain a better understanding of the social impact of youth participatory projects,
435 it is essential to use young people's skills, attitudes, and knowledge (Holden et al.
436 2004:615). Checkoway and Richard-Schuster highlight that youth are often "observed,
437 measured, tested and enumerated" by external evaluators (2008:24). These methods
438 position young people as passive social impact evaluation actors, deprived from a real
439 opportunity to analyse and/or engage with their experiences. Although these traditional
440 approaches frequently provide relevant metrics and insights into the knowledge of youth
441 participation practice, it is suggested that only meaningful participation can tap into
442 young people's unique expertise and encourage them to "develop knowledge for their
443 own social action and community change" (Checkoway and Richard-Schuster, 2003:22).
444 It is therefore vital to acknowledge that young people possess vital and unique
445 perspectives when evaluating the initiatives that serve them (Checkoway and Richard-
446 Schuster, 2003).

447 Power Dynamics

448 The problematic notion of power in the context of social impact assessment ought
449 to be analysed in two ways. Firstly, the control imposed by the governing and funding
450 bodies can have a significant impact on the quality of SIA. As previously discussed, SIA
451 was primarily implemented to meet projects' funding criteria and evidence-based policy-
452 making demands. Among many of the issues affecting the quality of the evaluation
453 process are: conflicting interests, funding criteria, power inequities, and experts'
454 subjectivity (Adams and Garbutt, 2008; Lockie, 2001; Pant, 2015). Belfiore and Bennett
455 (2007) critically examine the conventionally used and top-down evaluation approaches,
456 describing them as "the cult of measurable" (p.137). However, such quantitative,
457 economic, and statistical tools are unable to capture the full depth of social impact. It is
458 therefore essential to "move beyond narrowly conceive ideas of performance
459 measurement and target setting" (2007, p.138). Lockie (2001) has questioned the value
460 of externally imposed understandings of impact. He has stated that technocratic
461 rationality is often favoured by SIA practitioners, who dismisses the view of "an ill-
462 informed public" as "subjective, emotional and irrelevant" (2001, p.279). Certainly, the
463 externally enforced protocols used to predict outcomes of an intervention can have a
464 negative impact on the progress and evaluation of youth as well as adult initiatives.

465 Secondly, the power of the evaluation expert needs to be acknowledged. Scholars
466 agree that the distance between researcher and the research needs to be addressed
467 (Cousins and Whitmore, 1998). Recognising participants as active co-creators of the
468 social impact assessment results in "relocating power in the production of knowledge"
469 (Cousins and Whitmore, 1998:5). The notion of power dynamic should be considered in
470 particular when working with young project participants (Checkoway and Richard-
471 Schuster, 2003; Walker, 2007). Here, there is a risk that social impact evaluation
472 outcomes might be censored when interpreted via adult lenses. For example, Checkoway
473 and Richard-Schuster have argued that technocratic evaluation methods tend to
474 emphasise "troubled youths and casts them as human subjects" (2003:24). Therefore, it
475 has been declared that by fostering social equality during the evaluation process, projects
476 can enhance the validity of their evaluation data. Most importantly, however, meaningful

477 participatory youth evaluation “strengthens their ownership of the evaluation results”
478 (Gawler, 2005:1)

479 Learning

480 Traditional SIA approaches aim to effectively collect data and disseminate them
481 with the interested parties. Consequently, this process of technocratic information
482 extraction often excludes the researched community from the evaluation process.
483 Conversely, the inclusive and participatory methods of SIA aim to nourish learning and
484 critical reflection (Pant, 2015). Community participation in SIA is therefore essential in
485 order to identify reliable social impacts (Burdge, 2003). The use of local expertise is thus
486 defined as a key element of balancing the “technocratic bias with critical social learning”
487 (Burdge, 2003:226). The importance of learning has been defined as one of key ethical
488 considerations while evaluating with young people: “if the information gathering will not
489 directly benefit the children and adolescent involved or their community the evaluation
490 process should not proceed” (Gawler, 2005:3)

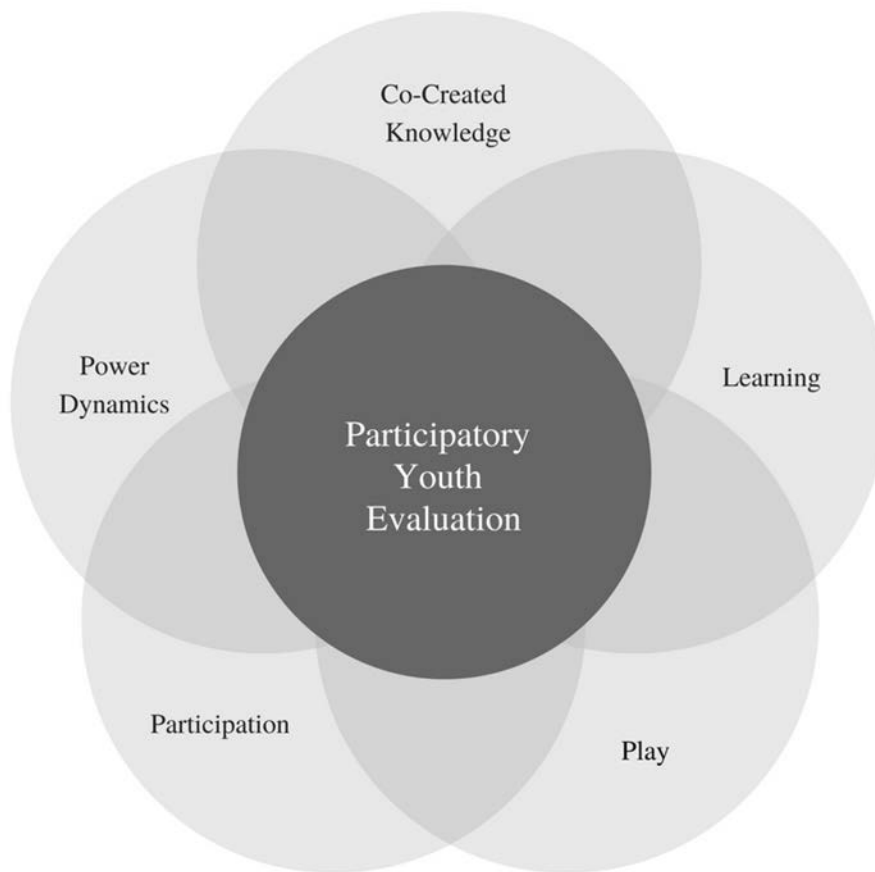
491 Play

492 Youth evaluation studies encourage the use of a range of creative methods
493 (Gawler, 2005; Innovation Centre for Community and Youth Development, 2005;
494 McCabe and Horsley, 2008; Sabo, 2003; Flores, 2008; Feinstein & O’Kane, 2008). The
495 traditional methods of evaluation (such as questionnaires, surveys, and focus groups)
496 often expect participants to have basic literacy or numeracy skills (McCabe and Horsley,
497 2008). However, McCabe and Horsley suggest that many individuals prefer to express
498 themselves in alternative ways, such as storytelling, painting, photography, and other
499 media (2008:1). Play and creative methods can indeed encourage both adults and youth to
500 become curious evaluators. Sabo claims that play helps to “level the playing field so that
501 staff and youth can begin to see evaluation as something everyone can do” (2008:25).
502 Sabo (2003) has also outlined the importance of role play in collective evaluation
503 process. In the process of projecting possible project outcomes, young people get an
504 opportunity to “break out of their socially fixed identities” (Sabo, 2003:17). Additionally,
505 during the participatory evaluation process, young people enter the “Zone of Proximal
506 Development” (Vygotsky, 1978), where they equally improvise and become the experts
507 of their experiences. Consequently, participatory youth environments should aim to
508 encourage youth to play with their identities instead of being defined by them (Sabo,
509 2003:22).

510 Likewise, in the context of youth digital participation, scholars claim that “game-
511 like learning” enhances youth’s participatory experience (Ito et al., 2013). Play and
512 experimentation have been therefore defined as key elements of digital learning
513 (Buckingham, 2008). It has been argued that the element of digital play not only enriches
514 the form of group inquiry but can function as an empowerment tool. (Black et al.,
515 2015:4). Playful evaluation methods aim to temporarily re-balance adult-youth power
516 dynamics and allow for a more equal distribution of control over data gathering and
517 interpretation. The literature review of practical resources for youth evaluation reveals
518 the richness of creative and playful social impact evaluation tools (McCabe and Horsley,

519 2008; Sabo, 2003; Flores, 2008; Feinstein and O’Kane, 2008). Ranging from video to
520 illustration, participatory youth evaluation covers a wide range of artistic and playful
521 tools. The implementation of play into participatory youth enriches the experience and
522 turns it into “an experience which is enjoyable by all those participating in the process,
523 rather than being something alien and imposed” (McCabe and Horsley, 2008:1).

524



525 **Figure 2. Youth Participatory Evaluation: five areas for consideration in youth**
526 **participatory evaluation (participation, knowledge co-creation, power dynamics,**
527 **learning, and play) are identified in the reviewed literature.**
528
529

530 **Moving forward: youth participation in evaluation and** 531 **adaptation of holistic and participant-cantered evaluations**

532 Through an extensive literature review in the areas of youth participation, digital
533 youth participation, social impact assessment, and social impact evaluation, two areas for
534 consideration when evaluating digital youth participation are identified and discussed in

535 this section: 1) the contribution from, and benefits of including, young people in
536 evaluation and 2) moving towards a holistic, participant-centred approach to evaluation.
537 These recommendations are synthesised from the analysis of scholarly debates and
538 industry documentation examining the value of youth digital participation.

539 1. Youth Participation in Evaluation

540 First, in the context of youth participation, scholars in digital (Ito et al., Koh,
541 2013), traditional (Checkoway and Gutiérrez, 2006; Checkoway and Richards-Schuster,
542 2003), and youth social impact evaluations (Checkoway and Richard-Schuster, 2003;
543 Gawler, 2005; Sabo, 2003), claim that young participants' meaningful involvement
544 should be at the centre of any youth development initiative. Through active participation
545 in the digital world, adolescents can exercise their voice, mobilise, and organise (Ito et
546 al., 2013). Defined as "potential innovators and drivers on new media change"
547 (Buckingham, 2008) with a unique technological expertise, young digital citizens of the
548 21st century co-create and co-design services and policies that aim to serve them
549 (5Rights, 2017; Children in Scotland, 2017). Thus, the recognition of young peoples'
550 technological skills, knowledge, and attitudes is vital when analysing the impact of digital
551 youth participation. Likewise, in the context of social impact evaluation, scholars have
552 recognised the importance of considering young people as equal partners and co-creators
553 of knowledge (Checkoway and Richard-Schuster, 2008). To gain a better understanding
554 of the social impact of youth participatory projects, researchers insist that it is essential
555 to use young people's skills, attitudes, and knowledge (Holden et al. 2004:615). Particularly
556 in the context of the digital era, it is crucial to move beyond the autocratic perception of
557 young people as "human potential, moulded and shaped by positive and negative
558 influences" (Percy-Smith and Thomas, 2010:XXI).

559
560 "When young people define their own problems rather than discuss the one given
561 by adult authorities, when they design their own age-appropriate methods rather
562 than uncritically accept adults ones' and the develop knowledge for their own
563 social action and community change rather than 'knowledge for its own sake' –
564 when they work in these ways, as Wang and Burris (1997) contend, it can raise
565 their consciousness and their spirit and move them to action." (Checkoway and
566 Richard-Schuster, 2003:22)

567
568 Thus, here it is advocated that the conscious recognition of young people as the
569 experts of their own participatory digital experience could aid the current evaluation
570 processes. Moreover, it is argued here that to more effectively address the needs and
571 concerns of "digital youth", it is vital "to flatten hierarchies" and introduce more
572 collaborative and inclusive evaluation system (Flores 2008:13). Although youth
573 participatory evaluation cannot fully substitute scientific and industry evaluation
574 standards, young digital citizens could certainly provide evaluation experts with
575 additional, important, unique, and age-appropriate perspectives. This view has been
576 supported by digital youth practitioners, who, during a discussion on social impact of
577 digital youth inclusion projects, posed the following question: "How do you measure

578 young people’s (digital) skills, if you don’t know yourself what the skills should be (as an
579 older person!)?” (#NotWithoutME, 2017).
580

581 2. Holistic and Participant-Centered Evaluations

582 Here it is advocated that the development of more holistic and participant-centred
583 approaches to social impact evaluation of youth digital participation. In order to enhance
584 the current understanding of the impact of digital youth participation, it is vital to search
585 for more experiential and experimental reflection and feedback mechanisms. Since the
586 top-down methods “have largely failed in the exercise of social explanations and
587 prediction” (Lockie 2001:281), it is argued that digital youth projects implementing
588 traditional evaluation approaches (such as surveys, interviews, focus groups or case
589 studies) could benefit from adding participatory and reflective exercises into their work
590 (Galwer, 2005; McCabe and Horsley, 2008; Flores, 2007). Not only does youth
591 participatory evaluation exercise produce more subjective and engaged feedback, but it
592 also protects participants from becoming passive subjects of top-down “information
593 extracting” procedures (Gawler, 2005). It is therefore important to acknowledge that the
594 effective value measurement should no longer be discussed solely in terms of “success or
595 failure model” nor “asking did a project ‘get participation right’ or meet programme
596 targets” but thinking about the reflective learning journey of the process (Thomas and
597 Percy-Smith, 2010:32).

598 Therefore, it is proposed an evolution into more holistic and participant-centred
599 evaluations. Social impact evaluation processes should be discussed in the context of a
600 continual and parallel process, where participants are provided with opportunities to
601 contribute to the development of: 1) project aims and objectives, 2) evaluation
602 parameters, 3) measurement tools, and 4) outcomes presentation and dissemination (Pant,
603 2015). Pant has also suggested that “evaluation is an integral, yet often overlooked
604 component of planning for social action” (2015:106). Therefore, this paper proposes that
605 instead of measuring the impact at a project’s final stages, youth-driven evaluation
606 methods should be considered as an ongoing reflective process. Young digital
607 participants should be provided with opportunities to reflect on their impact expectations
608 at the beginning of the project and examine their progress periodically as the project
609 evolves. Additionally, the final results should be “communicated in different ways,
610 responding to end users’ needs” (Pant, 2015:109). Through a more holistic approach, the
611 evaluation data can become truly relevant - not only to the project staff but to the young
612 participants themselves. Most importantly, considering the complex and multi-layered
613 nature of digital youth participatory projects, holistic methods might provide more
614 insightful perspectives and analysis, and in result empower young people to re-claim their
615 voices in the discourses around the value of digital youth participation.

616 Conclusion: young participants as co-evaluators

617
618 The literature review presented here reveals that the emergence of digital youth
619 participation has produced new challenges both for academics and youth development

620 practitioners. It can be assumed that “as technological innovations continue to develop,
621 social practices among youth creatively adjust around them” (Livingstone 2015, p.9) and
622 therefore, it will be increasingly challenging for the researcher community not only to
623 keep up to date with the technologies teenagers use (Subrahmanyam & Smahel, 2011,
624 p.19), but to examine and understand the impact of these revolutionary cultural changes.
625 Indeed, scholars (Buccieri & Molleson, 2015; Livingstone, Mascheroni & Staksrud,
626 2015; Mackril & Ebsen, 2015) and youth development practitioners (Wilson, 2017;
627 #NotWithoutMe, 2017) have agreed that to examine and improve the use of social impact
628 evaluation in digital youth participation alternatives, youth-centred practical solutions are
629 required. Likewise, they agree that the extent to which digital technologies support youth
630 development also requires further research (Buccieri & Molleson, 2015; Livingstone,
631 Mascheroni, & Staksrud, 2015).

632 Set against an examination of digital participatory youth initiatives and the
633 “traditional” approaches undertaken to analyse and capture their impact; this paper argues
634 the need for alternative approaches in impact evaluation. Acknowledging that there is “no
635 single tool or method that can capture the whole range of impacts or that can be applied
636 by all” (Dufour, 2015, p. 5), two areas of consideration when evaluating digital youth
637 projects have been identified: firstly, that current understanding of the value of youth
638 digital participation could be enhanced with the implementation of youth participatory
639 techniques; and secondly, that impact measurement processes should be holistic and user-
640 centred.

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642 References

643 Adobe Youth Voices (2017) Nine years of Adobe Youth Voices.

644 Available at: [http://www.adobe.com/uk/corporate-responsibility/education/adobe-youth-
645 voices.html](http://www.adobe.com/uk/corporate-responsibility/education/adobe-youth-voices.html) (accessed 10 September 2017).

646

647 Aiken M (2017) *The Cyber Effect: A Pioneering Cyberpsychologist Explains how
648 Human Behavior Changes Online*. Spiegel & Grau.

649

650 Araya D and McGovan H (2016). Education and accelerated change: The
651 imperative for design learning. In: Brookings.edu. Available at:

652 [https://www.brookings.edu/blog/brown-center-chalkboard/2016/09/14/education-and-accelerated-change-
653 the-imperative-for-design-learning/](https://www.brookings.edu/blog/brown-center-chalkboard/2016/09/14/education-and-accelerated-change-the-imperative-for-design-learning/) (accessed 10 September 2017)

654

655 Bennett A and Robards B (2014) Introduction: Youth, cultural practice and
656 media technologies. In: *Mediated youth cultures*. Palgrave Macmillan UK, pp. 1-7.

657

658 Black J, Castro J and Lin C (2015) *Youth practices in digital arts and new media:*
659 *Learning in formal and informal settings*. Springer.

660

661 Boyd D (2014) *It's complicated: The social lives of networked teens*. Yale
662 University Press.

663

664 Buccieri K and Molleson G (2015) Empowering Homeless Youth: Building
665 Capacity through the Development of Mobile Technology. *Journal of Community*
666 *Practice*, 23(2), pp.238-254.

667

668 Buckingham D (2008) *Youth, identity, and digital media* (pp. 119-142).
669 Cambridge, MA: MIT Press.

670

671 Burdge RJ and Vanclay F (1995) Social impact assessment. *Environmental and*
672 *social impact assessment*, pp.31-65.

673

674 Checkoway BN and Gutierrez LM (2006) Youth participation and community
675 change: An introduction. *Journal of Community Practice*, 14(1-2), pp.1-9.

676

677 Children in Scotland (2017) Year of Young People 2018. Available at:
678 <http://www.childreninscotland.org.uk/project/year-of-young-people-2018> (accessed 10 Septemebr
679 2017).

680

681 Checkoway B and Richards-Schuster K (2005) Participatory evaluation with
682 young people. *Ann Arbor, MI: University of Michigan, Program for Youth and*
683 *Community, School of Social Work*.

684

685 Cohlmeier D (2014) Developing a Technology Philosophy for Digital Youth
686 Work. *Concept*, 5(1), p.7.

687

688 Dell N & Kumar N (2016) The ins and outs of HCI for development.
689 In *Proceedings of the 2016 CHI Conference on Human Factors in Computing*
690 *Systems*, pp. 2220-2232.
691
692
693 Dufour B (2015) State of the art in social impact measurement: methods for work
694 integration social enterprises measuring their impact in a public context. In *5th EMES*
695 *International Research Conference on Social Enterprise: " Building a scientific field to*
696 *foster the social enterprise eco-system"*.
697
698 Duke AM, Sollie DL and Silva K (2016) Using Youth Participatory Evaluation to
699 Improve a Bullying Prevention Program. *Journal of Extension*, 54(4):4.
700
701 Egbo R (2012) Technologies of governance: an examination of youth
702 participation in development discourses. *Canadian Journal of Development*
703 *Studies/Revue canadienne d'études du développement*, 33(1), pp.77-89.
704
705 Erstad O (2012) The learning lives of digital youth—beyond the formal and
706 informal. *Oxford Review of Education*, 38(1), pp.25-43.
707
708 Evaluate IT (2015) Just Economics, pp.4-52. Available at: [https://goon-local-prod.s3-](https://goon-local-prod.s3-eu-west-1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf)
709 [eu-west-1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf](https://goon-local-prod.s3-eu-west-1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf) (accessed 1 September 2017).
710
711 Fitton D, Bell BT, Little L, Horton M, Read JC, Rouse M and Toth N (2016)
712 Working with Teenagers in HCI Research: A Reflection on Techniques Used in the
713 Taking on the Teenagers Project. In *Perspectives on HCI Research with Teenagers* (pp.
714 237-267). Springer International Publishing.
715
716 Flores KS (2007) *Youth participatory evaluation: Strategies for engaging young*
717 *people* (Vol. 14). John Wiley & Sons.
718

719 Gawler M (2005) Useful tools for engaging young people in participatory
720 evaluation. *CEE/CIS Regional Office: UNICEF*.
721

722 Guha ML, Druin A and Fails JA (2010) Investigating the impact of design
723 processes on children. In *Proceedings of the 9th International Conference on Interaction*
724 *Design and Children* (pp. 198-201). ACM.
725

726 Goldman S, Booker A and McDermott M (2008) Mixing the digital, social, and
727 cultural: Learning, identity, and agency in youth participation. *Youth, identity, and digital*
728 *media*, 216.
729

730 Hart R (1992) Innocenti Essays no 4: Children's Participation. From Tokenism to
731 Citizenship'. Available online at www.unicef-irc.org/publications/100.
732

733 Hea BW (2011) Why not ask them? Mapping and promoting youth participation.
734 *Children and Youth Services Review*, 33(4), pp.541-547.
735

736 Herring SC (2008) Questioning the generational divide: Technological exoticism
737 and adult constructions of online youth identity. *Youth, identity, and digital media*, pp.71-
738 94.

739 Hyder N (2017) Evaluation of TTS.Digital. Rep. Research Scotland.
740

741 Ito M, Horst HA, Bittanti M, Stephenson BH, Lange PG , Pascoe CJ, Robinson L,
742 Baumer S, Cody R, Mahendran D and Martínez KZ (2009) *Living and learning with new*
743 *media: Summary of findings from the Digital Youth Project*. MIT Press.
744

745 Innovation Centre for Community and Youth Development (2005) Reflect and
746 Improve. A Tool Kit for Engaging Youth and Adults as Partners in Program Evaluation.
747 Available at: http://www.theinnovationcenter.org/files/Reflect-and-Improve_Toolkit.pdf (accessed 30
748 August 2017).
749

750 Just Economics (2015) Evaluate IT. A step-by-step guide to demonstrating social
751 impact of digital inclusion projects. Available at: [https://goon-local-prod.s3-eu-west-](https://goon-local-prod.s3-eu-west-1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf)
752 [1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf](https://goon-local-prod.s3-eu-west-1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf) (accessed 25 August 2017).

753

754 Koh K (2013) Adolescents' information-creating behavior embedded in digital
755 Media practice using scratch. *Journal of the Association for Information Science and*
756 *Technology*, 64(9), pp.1826-1841.

757

758 Kriauciunas N (2016) Developing Digital Youth work. Retrieved from
759 <https://www.salto-youth.net/tools/toy/reference/developing-digital-youth-work.5292/> (accessed 20
760 August 2017).

761 Lemke J, Lecusay R, Cole M and Michalchik V (2015) Documenting and
762 assessing learning in informal and media-rich environments. MIT Press.

763

764 Livingstone S (2010) Digital learning and participation among youth: critical
765 reflections on future research priorities. *International journal of learning and media*, 2
766 (2-3): 1-13.

767

768 Livingstone S (2012) Critical reflections on the benefits of ICT in education.
769 *Oxford review of education* 38(1): 9-24.

770

771 Livingstone S, Mascheroni G and Staksrud E (2015) Developing a framework for
772 researching children's online risks and opportunities in Europe.

773

774 Livingstone S and Sefton-Green J (2016) *The class: Living and learning in the*
775 *digital age*. NYU Press.

776

777 Loncle P, Jackson G and Muniglia V (2012) Youth participation in Europe:
778 Beyond discourses, practices and realities. *Policy Press Scholarship Online Youth* 15(1):
779 205–214.

780

781 #NotWithoutMe (2017) Supporting Digital Inclusion for All Young People.
782 Available at: <https://padlet.com/CUKT/notwithoutmeactivenotes> (accessed 1 September 2017)
783

784 Mackrill T and Ebsen F (2017) Key misconceptions when assessing digital
785 technology for municipal youth social work. *European Journal of Social Work*, pp.1-12.
786

787 McMillan AS and Simkiss D (2009) The United Nations convention on the rights
788 of the child and HIV/AIDS. *Oxford University Press*.
789

790 Mihailidis P (2015) Digital curation and digital literacy: evaluating the role of
791 curation in developing critical literacies for participation in digital culture. *E-Learning
792 and Digital Media* 12(5–6): 443–458.
793

794 Percy-Smith B and Thomas N (2009) *A handbook of children and young people's
795 participation: Perspectives from theory and practice*. Routledge.
796

797 Print M (2007) Citizenship education and youth participation in democracy.
798 *British Journal of Educational Studies* 55(3): 325–345.
799

800 Quinlan O (2015) *Young Digital Makers*. Report, London: Nesta.
801

802 Richards-Schuster K and Pritzker S (2015) Strengthening youth participation in
803 civic engagement: Applying the Convention on the Rights of the Child to social work
804 practice. *Children and Youth Services Review* 57: 90–97.
805

806 Rietbergen-McCracken J and Narayan-Parker D (1998) Participation and social
807 assessment: tools and techniques. *World Bank Publications*.
808

809 Sabo K (2003) A Vygotskian perspective on youth participatory evaluation. *New
810 directions for evaluation*, 2003(98): 13-24.
811

812 STEP (2016) Scottish Travellers Education Programme. Available at:
813 www.step.education.ed.ac.uk (accessed 20 August 2017).
814

815 Stevens R, Gilliard-Matthews S, Dunaev J, Woods MK and Brawner BM (2016).
816 The digital hood: Social media use among youth in disadvantaged neighborhoods. *new*
817 *media & society*: 1-18.
818

819 Stornaiuolo A and Thomas EE (2017) Disrupting Educational Inequalities
820 Through Youth Digital Activism. *Review of Research in Education* 41(1): 337–357.
821

822 Subrahmanyam K and Šmahel D (2011) Constructing identity online: Identity
823 exploration and self-presentation. *Digital youth*, pp. 59–80.
824

825 Subrahmanyam K & Smahel D (2010). *Digital youth: The role of media in*
826 *development*. Springer Science & Business Media.
827

828 Suleiman AB, Soleimanpour S and London J (2006) Youth action for health
829 through youth-led research. *Journal of Community Practice* 14(1-2):125-145.
830

831 Tanner S (2012) *Measuring the Impact of Digital Resources: The Balanced Value*
832 *Impact Model*. Department of Digital Humanities, King's College London.
833

834 Vygotsky LS (1978) The role of play in development. *Mind in society*, pp. 92-
835 104.
836

837 Walker K (2007) Youth empowerment evaluation: Learning voice. *American*
838 *Journal of Evaluation* 28(3): 321-326.
839

840 Walther A (2012) Learning to Participate or Participating to Learn. *Youth*
841 *Participation in Europe. Beyond Discourses, Practices and Realities*, pp.189-207.
842

843 Wilson G (2017) Digital Inclusion for All Young People? *Holyrood Magazine*.
844 Dods Group Plc. Available at: [https://www.holyrood.com/articles/comment/digital-
845 inclusion-all-young-people](https://www.holyrood.com/articles/comment/digital-
845 inclusion-all-young-people) (accessed 12 August 2017).

846

847

848 Wilson G and Grant A (2017) #NotWithoutMe: A digital world for all? Carnegie
849 UK Trust. Available at: [https://www.carnegieuktrust.org.uk/carnegieuktrust/wp-
850 content/uploads/sites/64/2017/10/NotWithoutMe-2.pdf](https://www.carnegieuktrust.org.uk/carnegieuktrust/wp-
850 content/uploads/sites/64/2017/10/NotWithoutMe-2.pdf) (accessed 12 September 2017).

851

852 UNCTAD (2017) UNCTAD Youth Network. Available at:
853 <http://unctad.org/en/Pages/Youth-Network.aspx> (accessed 30 August 2017).

854

855 Young Scot (2017) Young Scot Digital Academy. Available at:
856 <http://www.youngscot.net/what-we-do/digital-academy> (accessed 30 August 2017).

857

858 Youth Link Scotland (2017) YouthLink Scotland | The national agency for youth
859 work. Available at: <https://www.youthlinkscotland.org/> (accessed 30 August 2017).

860 Zimmerman MA, Stewart SE, Morrel-Samuels S, Franzen S and Reischl T M
861 (2011) Youth empowerment solutions for peaceful communities: Combining theory and
862 practice in a community-level violence prevention curriculum. *Health promotion practice*
863 12(3): 425-439.

864

865 5Rights (2016) 5 Rights Framework. Available at <http://5rightsframework.com/>
866 (accessed 20 August 2017).

867

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