

Experiential Dialogues: Extended Reality (XR) as an Attentive Means of Listening and Knowing Care Identity.

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The research is represented as prototype digital ethnographic artefacts to be experienced in the Magic Leap headset and on mobile devices. The artefacts represent outcomes that were co-constructed during Research through Design (RtD) workshops with care experienced young people. The collaborative workshops enacted generative design research techniques as playful ways of being at the intersections of Applied Theatre and Human-Computer Interaction (HCI). This syncretism elicited novel meaning-making modalities of experience with the participants and lens-based technologies. The next phase of the research extends the participative workshop experience to explore new ways of knowing and understanding the agential and affective affordances of extended reality (XR) technologies with audiences.

Augmented Reality. Care Experience. Ethnography. Research through Design. Generative Techniques.

1. BIOGRAPHIES

John Morrison is a Lecturer of Digital Media and Interaction Design at Edinburgh Napier University and Co-founder of Liminal Studios. John's practice-based PhD employed Research through Design (RtD) as a collaborative mode of trauma-informed inquiry. He is interested in contributing knowledge on generative techniques towards new ways of knowing and understanding stigmatised communities and lens-based technologies.

Andrew Mckelvey is a Lecturer of Digital Media and Interaction Design at Edinburgh Napier University and a freelance creative practitioner. Drawing on his practice as a motion designer and animator, Andrew's research interests interrogate the intersections of storytelling and real-time technologies.

Matthew Kranicz is an Edinburgh-based indie game developer, video editor and 3D artist. Matthew's design practice includes exploring the creative storytelling possibilities of augmented reality with national 3rd sector clients, including, The Centre for Excellence for Children's Care and Protection and Our Hearings our voice.

The pace of rapid and constant technological change in the 21st Century has generated vast and dynamic social-technical systems of uncertainty (Ito & Howe, 2016). Professor of neuroscience, Beau Lotto argues, our brains are hardwired to avoid uncertainty, yet a tolerance for uncertainty is necessary for new knowledge and seeing differently. Therefore, the construction of new knowledge involves being in and navigating through spaces of uncertainty (Lotto, 2017, p.247).

Our research centres around the exploration of digitally mediated generative design research techniques, which embrace ambiguity as a natural characteristic of plural and dynamic qualitative meaning-making processes.

Epistemologically the research is inspired by the habits of mind and creative practice of pioneering filmmaker and ethnologist Jean Rouch (Rouch & Feld, 2003; Sjöberg, 2008). Rouch's playful, performative and reflexive approach concerning human and technological agents resonates with the generative, speculative, situated, and provocative philosophical tenants of Research through Design (RtD) (Stappers & Giaccardi, 2017).

2. OUTLINE OF THE WORK

Our technologies have outpaced our ability, as a society, to understand them. Jeff Howe.

In this thesis, Rouch's ethnofiction genre is recovered as a practical philosophy to help navigate uncertainty in qualitative meaning-making

processes, toward illuminating latent aspects of situated social and technical phenomena. Ethnofiction as an epistemological way of knowing is recast with lens-based technologies toward the formation of a schema for complementing the repertoire of generative design research techniques (Sanders & Stappers, 2020). Through a prism of 21st Century design research, Rouch's approach is modified and extended with the ethical and affectual practices of HCI and Applied Theatre (Benyon, 2020; Boal, 2006; Stuart & Thompson, 2020).

2. GENERATIVE DESIGN RESEARCH

Play Delights in Uncertainty – Alex Dunedin.

Our application of generative design research revolves around a playful way of collaboratively and reflexively navigating uncertainty. Generative techniques can be articulated in two dimensions of our creative research practice. Firstly, the ways we work with and for communities through a process of active and attentive listening, collectively generating topics for exploration, rather than hypothesis testing. Secondly, the ways knowledge is generated on latent aspects of social and technical phenomena by playfully attending to what people make, improvise and dream.

The generative process often leads to insights that can be difficult to surface through other qualitative means. By technique, we refer to the ways tools such as digital technologies are employed. For us, these are playful practice-led applications of lens-based technologies, animated with participatory and emancipatory mindsets.

The interactive research artefacts presented form part of wider research that unfolded as a series of trauma-informed Research through Design (RtD) workshops, collaborating with care experienced young people in Scotland. Care experience is a term used to describe a person who is currently in care or has a looked after background. Insights on aspects of care identity were elicited towards improvements to policy and service design practice in Higher Education.

The presented prototype artefacts reflect findings from the first cycle of fieldwork. These generative RtD workshops evolved in collaboration with the Edinburgh Council, which had recently established a forum for care experienced young people currently outside of tertiary education.

3. CARE IDENTITY

Research on the social dimension of care identity was motivated by an identified need for ethically rigorous qualitative data to supplement the current predominance of quantitative data. Prior to commencing the research in 2016, provision and policy for educational care services in Scotland were primarily influenced by quantitative data.

The statistics on care experience and access to higher education in Scotland highlight significant inequities. The Scottish Government reports that about 40% of 19-year-old school leavers attend university compared to just around 4% of those who are care-experienced (Gov.Scot, 2020).

It can be argued that on their own these statistics represent an incomplete picture, one that can be stigmatising to the people behind the numbers e.g., reinforcing negative cultural stereotypes and implicit biases, such as the false assumption that young people enter the care system due to wrongdoing on their part rather than a need for care and protection.

Our inquiry is motivated by the ways generative design research techniques can be enacted to co-construct qualitative meaning-making sessions with communities to better understand the complex and dynamic nature of care identity. By reframing the focus from blame on individuals to service design enhancements of HE care systems, we aim to help disrupt the deficit discourse on care identity. Rather than replacing quantitative data, the findings can supplement the single story of statistics with a more textured and plural qualitative worldview. A stance that privileges and celebrates creative expression in order to contribute to more human and relationship centred improvements in the design of educational policies.

4. RESEARCH THROUGH DESIGN (RTD) WORKSHOPS

The generative RtD sessions were actively participatory, where care experienced young people and educational care service policymakers exercised agency in constructing composite persona characters in the form of empathy maps. While protecting the confidentiality of the contributors, these persona characters presented authentic aspects of their lived experiences.

The participants embodied the persona characters through projected improvisations of speculative future scenarios. As a result of negotiations, the form

of the scenarios was decided upon based on the topic of access to higher education and values participants deemed important, such as being listened to. Key relational moments from these scenarios were then expressed as a Tableau for deeper analysis and discussion. A Tableau is a theatrical technique where participants pose to create a freeze-frame with their bodies (Boal, 2006). This creative participatory practice facilitated an embodied means of attentiveness among the participants, who were able to appreciate different perspectives on the same social phenomena.

5. PROTOTYPE DIGITAL ARTEFACTS

The Tableau freeze-frames were captured using a volumetric camera. These 3D digital ethnographic artefacts form spatiotemporal representations of the embodied workshop experience, creating media for continued dialogue, participatory coding, reflexive practice, and audience engagement.

In their purest form, the sculptural prototype artefacts are Cartesian (X, Y, Z) data points in space. Presenting the artefacts as point clouds and wireframes is congruent to the Tableau workshop experience and research objectives, preserving the fidelity of the original data while creating a layer of

abstraction for addressing ethical challenges of representation and confidentiality.

We see the prototypes as vehicles for crafting interactions with audiences beyond traditionally passive media, such as photography and film. At the interactions gallery, the prototype artefacts are presented through extended reality (XR) technologies as a form of data visceralisation. By observing how audiences inter-act (Barad, 2007) with the prototypes we anticipate gaining novel perceptual insights into the potential agential and affective affordances of the technologies.

The experiences of the XR prototypes mimic a theatrical 4th wall break, one in which both the audience and the environment in which the project is situated become characters. We hope that this embodied and attentive listening can evoke the available agency of the audiences to effect changes in the care systems we are all a part of.

5. TECHNICAL DESCRIPTION

The prototype digital artefacts can be experienced in AR through users' smart devices and with a provided iPad and Magic Leap headset.



Figure 1: Screen capture of sculptural prototype artefacts from Image Theatre Tableau, conducted during RtD workshop with care experienced young people. Available in interactive form at <https://skfb.ly/6TIWx>

6. REFERENCES

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