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DESIGN FOR EMPATHY WITHIN PARTICIPATORY DESIGN APPROACHES

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ABSTRACT

The role of the designer is changing from the 'top-down' creative to the humble designer (Slavin, 2016), fostering collaboration with a range of stakeholders and partnering with other disciplines as the 'integrative discipline' (Teal and French, 2016). As such, a new consideration of empathy is required to creatively engage people in co-creation using participatory design approaches.

This paper discusses empathy within a participatory design approach, sharing methods and reflections of designing 'with' and 'for' empathy. The paper considers the role of the designer in engendering empathy in collaborative creativity, and illustrates approaches from applied projects in the health and care context.

Experience Labs are a participatory design approach providing a space for collaboration where a diverse range of participants (academics, business, civic, end users) can collaborate in a creative process to explore and iterate concepts for health and care. The Lab methods, tools and artefacts are designed to move participants through a series of designed *spaces* to provide them with the experience, skills and language required to critically reflect and evaluate emerging ideas. Collaborations are carefully curated to bring together the 'right' mix of expertise in relation to the project. The challenge is to ensure that relationships move quickly from 'them and us' to a collective 'we', as we explore ideas and build trust. The methods and approaches used to foster empathy will be shared, alongside previous literature on empathic design within user-centred approaches, highlighting the need to consider the ways in which we design 'for' empathy in participatory design.

Keywords:

Empathy, participatory design, collaborative creativity

INTRODUCTION

In the health care context, the value of involving end users earlier in the design process is becoming increasingly recognised, not only in relation to complementing the expertise of health professionals (Entwistle et al., 1998), but also when using participatory design to enhance efficiency and usability of products and services (Bowen, 2010). There is a growing body of literature on the use of design approaches within health care (Chamberlain et al., 2015), and an increasing recognition of the value and contribution of design to innovate and tackle challenges in complex adaptive systems (Rouse, 2008).

The role of the designer is changing from the 'top-down' creative to the humble designer (Slavin, 2016), fostering collaboration with a range of stakeholders and partnering with other disciplines as the 'integrative discipline' (Teal and French, 2016). As such, a new consideration of empathy is required to creatively engage people in co-creation using participatory design approaches. We must consider how empathy is integrated within these design processes and the resulting role of the designer. Engaging deep empathy is an inherent design attitude, embedded in design practice and shaping how decisions are made (Michlewski, 2015). Designers can build empathy with end users and identify insights that can be translated into opportunities with the potential to address complex societal challenges. Empathic research practices move beyond traditional research approaches by engaging participants to become collaborators, developing knowledge and understanding together with researchers, to produce effective products and services which are appropriate to needs (Thomas and McDonagh, 2013).

This paper discusses empathy within a participatory design approach, sharing methods and reflections of designing 'with' and 'for' empathy. The paper considers the role of the designer in the creation and embedding of empathy in collaborative creativity, and illustrates these approaches from a review of completed projects in the health and care context. The methods and approaches used to foster empathy are shared and discussed within the context of previous literature on empathic design within user-centred approaches, highlighting the need to consider the ways in which we design 'for' empathy in participatory design.

THE ROLE OF EMPATHY IN EXPERIENCE LABS

Experience Labs are a participatory design approach providing a space for collaboration where a diverse range of participants (academics, business, civic, end users) can collaborate in a creative process to explore and iterate ideas for a wide range of health and care contexts. Experience Labs were developed by the Institute of Design Innovation at The Glasgow School of Art and are a central element in the Digital Health and Care Institute, an Innovation Centre which aims to improve the delivery of health and care services in Scotland. Experience Labs function early in the design process to ensure that concepts are generated in response to identified needs from the perspectives of those who will become end users of products/services. The methods, tools and artefacts designed for the Lab are crafted to help move participants through a series of designed *spaces* to provide them with the experience, skills and language required to critically reflect and evaluate emerging ideas. Experience Labs are mobile, operating across Scotland, and involve creating temporary spaces conducive to the project context.

We have considered to date the role of tools and artefacts in communicating and expressing ideas between designer and participant (French, Teal and Raman, 2016), however we have yet to consider the empathic nature of the tools and artefacts and their role in building empathy amongst participants. Within the Experience Lab, we work with a diverse range of participants, which requires the development of a common language and shared understanding. Empathy in our work is therefore two-fold: it is applicable to the way in which we create the experience for participants, i.e. how we design the Lab itself and the way in which we create the space to move participants through the design process; but also the way in which we design the space for participants to be able to empathise with each other. In early stages of collaboration this may involve participants sharing personal experiences, in order to reflect and create meaning from multiple perspectives (Wright and McCarthy, 2010), whilst building empathy. Sharing personal experiences can make participants feel vulnerable, and requires careful facilitation to create a safe space for sharing. The ability to empathise has been shown to be important for relationship quality by facilitating social competence and enhancing meaningful relationships (McDonald and Messinger, 2011). Promoting an empathic understanding within participatory design approaches can therefore enhance collaboration, and potentially have a positive influence on outcomes. Our challenge is to ensure that relationships move quickly from 'them and us' to a collective 'we', as we explore ideas and build trusting relationships.

Ideas for Experience Lab projects within the health and care context come from a range of partners who may be from an academic, business or civic background. Creating the conditions for empathy is highly important to ensure that the project partners can understand the perspective and experiences of the prospective users of their innovation. To foster empathy, partners are encouraged to attend Experience Labs and if appropriate, become participants during Lab activities. Involving a range of stakeholders in the Labs requires the development of a shared language among those who participate to ensure effective communication, bridging boundaries of difference and providing a shared focus to develop relationships throughout the process (Thomas and McDonagh, 2013). The resulting shared language that emerges through the Experience Lab contributes to the development of an empathic understanding among those involved and relies on values such as mutual respect, patience and acceptance (ibid).

DESIGNING FOR EMPATHY

Designing for empathy has received attention through a discussion of empathy 'things', which can be mobilised to support and build empathy within the design process (Gamman et al., 2016; Mattelmäki and Battarbee, 2002). Designing for empathy in Experience Labs requires the researchers to find ways 'to elicit and understand human needs in order to translate them into tangible design outcomes' (Thomas and McDonagh, 2013). Cipolla and Bartholo (2014) argue that designers should strive for inclusion in their design process, rather than empathy, to achieve dialogue with end users. They argue that in enacting empathy, the designer (or in our case the participant) excludes their own experience and assumes (or presumes) what the other feels or experiences, rather than listening and entering into dialogue. In the context of Experience Labs, we argue that effective listening and dialogue requires empathy *and* inclusion: these concepts are not mutually exclusive. It is important to be inclusive of differing perspectives and empathy is required to understand and identify differences and synergies in participants' needs and experiences towards collectively designing an outcome that is inclusive.

Similar to pedagogical perspectives on empathy, researchers within the Experience Lab use attunement, decentring and introspection in order to build empathy (Arnold, 2003, cited in Seddon, 2004). The Labs are an emergent process similar to Participatory Action Research (Reason and Bradbury, 2013), where new communicative spaces emerge and participants engage in experiential learning. Attunement prepares participants for design activities, providing recognition and validation through 'mirroring' (Seddon, 2004). Through decentring, researchers are able to 'see things from another's point of view experiencing layers of thought and feeling beyond what might be immediately accessible' (ibid). Through introspection researchers can 'reflect on past experience to guide future action by working through stored, embodied and often unconscious memories to select significant ones' (ibid). For our participants, a key aim is to facilitate 'outrospection', to enable participants to better reflect on their experience by stepping outside themselves and exploring the lives and perspectives of others (Krznaric, 2015).

1) Knowing our participants

Previous research has described empathic design as a 'quality of designing but also a quality of designers' relating to ability and willingness (Kouprie and Visser, 2009). In our work, ability and willingness are also important factors to account for in relation to the way in which we design 'for' empathy amongst participants. Participants will have varying abilities in relation to empathy and will also have influences on their willingness to be empathic. As Wright and McCarthy (2008) highlight the importance of 'knowing the user' and describe approaches for building empathy with users for the purposes of HCI design, it is the role of the participatory designer to gauge the abilities and willingness of our participants to empathise, and design and structure the Labs to ensure we build empathy within the group for the purposes of collaborative creativity. As such, significant time may be spent in context gathering and *getting to know* our participants through interviews, home visits and engagements prior to the Lab. These activities rely on the empathic skills of the design researcher, and offer valuable insight into the

perspectives, personalities, and interpersonal skills of the participants. Insights gained enable the Experience Lab activities to be tailored and bespoke to the participants, and to ensure balance and attunement within the group. Additional team members are briefed on the participants they may be facilitating: highlighting their background and interests, and any participants who may need encouragement or support to engage.

In some projects it is not possible to develop these relationships prior to the Experience Lab, perhaps due to resource or the availability of participants (e.g.Labs involving busy clinicians). Alternative strategies for building empathy prior to designing Lab activities have included ethnographic observations to understand the context within which our participants work (e.g. shadowing ambulance crews on their shifts). While this does not allow staff to gauge the willingness and ability of the individual participants to engage in empathy, it allows design researchers to empathise with their working conditions and ensure the activities build empathy between participants by tapping into common challenges.

2) Creating safe spaces

Careful consideration is given to creating the right conditions for empathy in participatory design activities, in order to ensure participants feel safe and comfortable to both share their experiences and ideas, and relate to others. Consideration of the qualities of the physical space chosen for the Lab, such as neutrality, openness, and neutrality of the space; the facilitation skills and attitudes of the design researchers, and the level of attunement within the group, all contribute to ensuring participants feel safe and can engage in the design process.

In creating a safe space for empathy among participants it is important that researchers develop an awareness of self and others, and have strong communication skills particularly in relation to careful listening and responding (Wright and McCarthy, 2008). Facilitation skills become increasingly important for empathy, particularly when participants are engaged in storytelling and the sharing of lived experience. Luck (2007) highlights the importance of conversational competencies when facilitating participatory design activities, in actively engaging user groups in the design process. Through experience, facilitators become skilled in communicating the purpose of the activity, actively engaging participants through appropriate questioning, humour, and recognising and encouraging suggested ideas (ibid). Introspection is key to empathic facilitation within Experience Labs, in considering how it might feel to walk into a room full of strangers and be asked to share personal experiences or participate in creative activities with no prior experience. Holding these thoughts and emotions at the forefront of the mind, can help facilitators to put the participants at ease. Facilitators build a safe space through carefully chosen language, listening and responses that communicate the values of participatory design, i.e. that participants are the experts in the context within which we are aiming to innovate, and as such every response is useful and valid. In addition, by carefully documenting each participant's suggestions using Lab materials and verifying understanding, facilitators can keep an accurate record whilst communicating the value placed on each contribution.

3) Methods and Tools

Methods employed at early stages of the Experience Labs often involve storytelling and scenario based tools through which participants can share and relate to other's experiences. Visual methods help to make these experiences tangible and communicate them to the wider group, and can aid in the processes of mirroring and decentring. Visual documentation can also provide a way to represent multiple layers of information and find a common language. Storytelling provides a way for participants to empathise with each other through sharing their personal experiences and can support empathy among diverse groups. Evidence for this comes from the use of video storytelling to share personal experiences between a group of mothers and a group of young people during a health promotion project. Mothers were video recorded recounting their experiences, which were then shown during a subsequent Lab with young people. On watching the video, young people commented that the authenticity and genuineness of the lived experience of the mothers gave them insight into an experience they had little

awareness of, and thus increased their empathy with the mothers. Through the process of decentring, the young people were able to appreciate the perspective of the mothers on the health promotion topic and combine this perspective with their own to develop an awareness campaign targeted at young people. Fictional video storytelling has also been used to communicate a proposed new technology, using a design fiction technique (Blythe, 2014) to demonstrate how the technology would impact on every day life. Actors discussed their experience of using the technology, and they demonstrated it in practical use through a Wizard of Oz prototype. This technique enabled older patients to imagine themselves in the place of the actor, thus relating the concept to their own life, and giving useful feedback about acceptability and value prior to the development of the system.

Designers also use tools and artefacts to foster empathy within the Experience Labs. The tools and artefacts are carefully designed to embody insights that have been uncovered during contextual research. In one project, the analogy of piloting a hot air balloon was used to describe the challenges of living with a long term condition. Model hot air balloons were hung within the Lab space, as prompts to encourage participants to reflect and share their experiences of self management. Specific challenges identified through interviews with participants were written on sandbags and placed in the balloon baskets. Participants discussed each sandbag challenge in turn, sharing their strategies for and experiences of overcoming the challenge as meanwhile the balloon rose higher, representing successful flight (or self management). The tool enabled empathy to be built within the group, creating shared meaning, and learning from or affirming other's experiences. One participant extended the analogy to describe the challenge of the 'snake in the basket' i.e. instances where other challenges in life may have a higher priority and require more attention than piloting the balloon.

Personas are often using by designers to embody insights and build empathy with end users (Cooper, 1999). In the Experience Lab, personas are often developed by the participants themselves, rather than generated by designers, with groups asked to agree on a name, background information, and discuss this person's thoughts, feelings and challenges. This approach is used as it enables participants to build empathy with the persona through imagining their thoughts and feelings, collectively construct a shared point of reference for future design activities, and importantly to safely share personal experiences by discussing them in the third person. As a result, the activity builds attunement between participants and a common goal in developing ideas to overcome the challenges identified for this person. These tools can encourage reflection, introspection and outrospection, building empathy amongst participants that results in a deeper understanding of the context and insights that lead to better design outcomes.

Whilst considerable time is spent in getting to know participants and contexts, and carefully designing and facilitating appropriate spaces, activities and tools, Experience Labs are discrete events that require flexibility and adaptation when challenges arise. Challenges experienced relate to recruitment of participants, willingness of participants to be open to a new way of working, and overcoming pre-conceptions and differing views so that ideas can continue to progress and conflict can become productive resolution.

CONCLUSIONS

In this paper we have shared our methods and reflections of designing 'with' and 'for' empathy in our participatory design approach, Experience Labs. We have explored the role of empathy in supporting collaboration through the application of attunement, decentring, introspection and outrospection processes in the Experience Lab approach. Applying these processes within the participatory design context, we have considered how Experience Labs enable these processes, and create the conditions for collective empathy. As such, we have discussed the role of the designer in building relationships and contextual understanding of participants, creating the conditions and designing artefacts to embody the insights gained as a way to open

up the design process to foster empathy. Future research will consider the wider impact of our participatory design approach in building empathic capacity among participants, as part of a comprehensive study on the benefits of participating in Experience Labs.

REFERENCES

Blythe, M., 2014, April. Research through design fiction: narrative in real and imaginary abstracts. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 703-712). ACM.

Bowen, S., 2010, April. Critical theory and participatory design. In *Proceedings of CHI*.

Chamberlain, P., Wolstenholme, D. and Dexter, M., 2015. *The state of the art of design theory and practice in health: an expert-led review of the extent of the art and design theory and practice in health and social care.* Sheffield University.

Cipolla, C. and Bartholo, R., 2014. Empathy or inclusion: A dialogical approach to socially responsible design. International Journal of Design, 8(2).

Cooper, A., 1999. *The inmates are running the asylum: Why High-tech products drive us crazy and how to restore the sanity.* Indianapolis: Sams Publishing.

Entwistle, V.A., Renfrew, M.J., Yearley, S., Forrester, J. and Lamont, T., 1998. Lay perspectives: advantages for health research. *BMJ*, *316*(7129), pp.463-466.

French, T., Teal, G., and Raman, S., 2016. *Experience Labs: Co-Creating Health and Care Innovations Using Design Tools and Artefacts.* In: 2016 Design Research Society 50th Anniversary Conference, 27 - 30 Jun 2016, Brighton, UK.

Gamman, L., Thorpe, A., 2016. Empathy 'things'/games. Workshop conducted at: *Design Research Society 50th Anniversary Conference,* 27-30 June 2016, Brighton, UK.

Kouprie, M. and Visser, F.S., 2009. A framework for empathy in design: stepping into and out of the user's life. *Journal of Engineering Design*, *20*(5), pp.437-448.

Krznaric, R., 2015. *Empathy: why it matters, and how to get it*. Random House.

Luck, R., 2007. Learning to talk to users in participatory design situations. *Design Studies*, *28*(3), pp.217-242.

McDonald, N.M. and Messinger, D.S., 2011. The development of empathy: How, when, and why. *Moral Behavior and Free Will: A Neurobiological and Philosophical Aprroach*, pp.341-368.

Mattelmäki, T. and Battarbee, K., 2002, January. Empathy probes. In *PDC* (pp. 266-271).

Michlewski, K., 2015. *Design attitude*. Gower Publishing, Ltd.

Reason, P. and Bradbury, H. eds., 2013. *Handbook of action research: Participative inquiry and practice*. Sage: London.

Rouse, W.B., 2008. Health care as a complex adaptive system: implications for design and management. *Bridge-Washington-National Academy of Engineering-*, *38*(1), p.17.

Seddon, F.A., 2004. Empathetic creativity: The product of empathetic attunement. In: Miell, D., and Littleton, K. *Collaborative creativity contemporary perspectives*. London: Free Association Books

Slavin, K., 2016. Design as Participation, *Journal of Design and Science*. Retrieved from: http://tinyurl.com/h47q7xg

Teal, G., and French, T., 2016. *'Fast forward': Accelerating Innovation in Health and Wellbeing.* In: The 20th DMI Academic Design Management Conference, 28-29 July 2016, Massachusetts College of Art and Design, Boston.

Thomas, J. and McDonagh, D., 2013. Empathic design: Research strategies. *The Australasian medical journal*, *6*(1), p.1.

Wright, P. and McCarthy, J., 2010. Experience-centered design: designers, users, and communities in dialogue. In: *Synthesis Lectures on Human-Centered Informatics*, *3*(1), pp.1-123.

Wright, P. and McCarthy, J., 2008, April. Empathy and experience in HCI. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 637-646). ACM.