Abstract
Design approaches have been developed to establish empathy between practitioners, researchers, collaborators, and participants in human-computer interaction (HCI) in the context of health, care, and wellbeing. Unpacking nuances of empathy, in this position paper we discuss our exploratory research into bereavement following miscarriage and consider how our visual practice has enhanced communication and comprehension within an interdisciplinary team. We propose that such accessible visualisations can stimulate a shared, compassionate understanding of user needs, and thus inform the development of empathic services, systems, and solutions.

Author Keywords
Empathy; Design; Visual; Methods; Communication; Comprehension; Compassion; Wellbeing

ACM Classification Keywords
H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction
As user-centred approaches continue to permeate the landscape of HCI and design innovation in health and care settings, empathic engagement is widely promoted. Empathy allows designers to imagine themselves in the position of the user and devise
holistic solutions based on their own contextual experiences [9]. This definition extends throughout co-creation and co-design to deepen reciprocal understanding and establish productive relationships [1].

Brown advises practitioners and researchers to be sensitive and receptive to the emotional factors underlying user experience and to devise, apply, and evaluate methods for prompting and sustaining empathy [2: 40]. In questioning its ubiquity in design research however, Kimbell [4] affirms that empathy has been fetishised to the extent that practitioners and researchers have lost sight of a user-centred design rationale. Kimbell’s critique supports our collaborations with healthcare professionals, and our aim to reinstate the designer’s expressive visual practice as a means of strengthening empathic communication, comprehension, and compassion between practitioners and people.

**Approaching Empathy**

Mattelmäki and Battarbee [6] reappropriate conceptions of cultural probes [3] as empathy probes – interactive activity packages containing diaries illustrated question cards and disposable cameras – to elicit participants’ subjective interpretations of physical and emotional wellbeing. Upon presenting their analyses, Mattelmäki and Battarbee note that the designers working in the client company expressed an increased degree of compassion for the people behind the materials [6: 270]. Buchenau and Suri [1] recognise the empathic, evaluative, and communicative qualities of building and testing rough iterations of their designs with prospective users. Their practice of ‘experience prototyping’ in health and care settings underlines how interdisciplinary assessments of the look and feel of products, services, and systems provide a platform for gathering essential feedback and refining interventions to closer correspond with users’ unmet needs [1: 432]. In their investigations, Suri, Battarbee, and Koskinen go on to examine how empathetic thinking can be instilled and embedded in designers’ working practices through shadowing and simulation exercises [10]. These ready-made tools and techniques can stimulate designers’ empathic engagement with user-participants, clients, and collaborators as a desirable attribute of HCI relationships. In so doing, empathy appears to be, on the surface, easily instigated by designers, regardless of their particular practices and areas of expertise.

**Designing Empathy**

Examining dualities of cognitive and affective empathy, New and Kimbell [7] distinguish between the designer’s ability to imagine and describe user experience in a speculative sense on the one hand, and to actively adopt a user persona and invest in their experience through ‘emotional labour’ on the other [7: 144]. Rather than being a rationalistic prerequisite that is forged in an attempt to undertake a ‘dumbed-down version of ethnographically-informed research’, the mode of affective and aesthetic empathy is mutually experienced by designers and participants through their dialogic and sensory interactions [4].

Empathic simulations allow practitioners to focus on their sensory awareness including: spatial; olfactory; auditory; kinesthetic; and tactile. This approach aims to develop designers’ multi-sensory and non-verbal
understandings from an otherwise inaccessible perspective towards a richer comprehension of inclusive design for a diverse population [10: 8]. Don Norman’s observations of the nuances of beauty in HCI are pertinent to this discussion [8]. A design outcome’s effectiveness cannot be evaluated purely in terms of perceived usability, but must be formally supplemented with theoretical considerations of the ‘aesthetic side of interaction’ [8: 312-313].

As New and Kimbell allude to [7: 146], current toolkits thought to stimulate empathic connections are standardised and limited, and are thus more in line with the rigidity and rationality of the cognitive model in which data and outcome overshadow engagement and understanding. Moreover, they argue that the craft techniques required to produce such tools – their conceptual content, material format, and visual tone – are easily learned skills. To critique this point, we propose that the methodological ‘machinery of empathy’ [7: 146] originates from the designer’s ability to respond creatively to each unique design context, and that this reflexivity through visual and visceral practice transcends rationality to instill aesthetic and affective empathy in design practice and research. Identifying an overarching neglect of an aesthetics of form and beauty in HCI processes and methods, our research examines the role of the designer’s practice in strengthening empathic communication and comprehension with interdisciplinary collaborators in the context of health, care, and wellbeing.

**Ritual Respect**

The Ritual Respect programme was developed by the Glasgow School of Art’s Institute of Design Innovation in association with obstetricians, gynecologists, and health practitioners from NHS Scotland and the Digital Health Institute to address a lack of ongoing emotional support provision for women following miscarriage.

Visually documenting the initial exploratory discussions that took place and using our illustration practices to reflect on key insights and ideas afforded a means to represent multiple layers of information and fostered a common language when presented back to the interdisciplinary team.

![Figure 1: Example of Ritual Respect project illustrations.](image)

The drawings’ compositions evidence our spatial interactions as we shared stories, mapped networks of information, offered feedback and advice, and conceptualised the evolving scope of the project diagrammatically. At the same time, their playful and fresh visual tone mirrors the richness of dialogue that emerged during the sessions. Our techniques for visual communication and multi-sensory comprehension suggest an aesthetic approach through which designers can build empathic and productive relationships with participants and collaborators. Reflexively envisaging Norman’s visceral and reflective beauty in these tools.
we propose that the designer’s expressive practice extends New and Kimbell’s notions of aesthetic empathy [7] in interdisciplinary design innovation.

These accessible visualisations have directed the research towards designing an integrated care platform which engages, encourages expression, and empowers women through creative storytelling. Reflecting Massimi and Baecker’s emphasis on interpersonal communication, new ways of being in the world, and materiality in the development of digital systems for readjustment following bereavement [5], we seek to develop our practices of visual communication and comprehension to offer women a safe and supportive virtual space to externalise their emotional experiences. With our research focus on the emotive qualities of visual representation in design innovation, we aspire to prototype, iterate, and implement a digital interface that echoes the qualities of compassionate person-to-person contact. In this ongoing research, we explore the applications of practice-led visual epistemologies in promoting a methodological translation of aesthetic empathy across the process of HCI research, and how this legacy of understanding and trust is embedded in the design outcomes.

**Acknowledgements**

We thank all our collaborators from the Glasgow School of Art, the Institute of Design Innovation, in particular Professor Irene McAra-McWilliam, the Digital Health Institute, and NHS Scotland including Professor Grant Cumming for their continued support and input into this research.

**References**