

Drawing on Experiences of Self: Dialogical Sketching

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ABSTRACT

In this paper, we present a method of Dialogical Sketching. We introduce the development of this method as a discursive aid to understanding design probe responses within participatory co-design engagements but also articulate its potential more broadly within participatory research. Situated within a research study into the potential of digital jewellery to support self, we focus on how sketching can elucidate reflection on layers of meaning conveyed both explicitly and implicitly in participants' probe responses. The method enabled an iterative dialogue not bound by certainty, but more by inference, interpretation and suggested meanings. Systems of sketching scaffolded conversations about personal issues and feelings that were difficult to articulate in a way that was imaginative, rather than descriptive. We argue that the method firstly enriches the potential of probes, secondly encourages discourse in open and often uncertain ways and thirdly can enable sustained participatory engagement even through challenging circumstances.

Author Keywords

Sketching; Visual Dialogue; Participation; Probes; Transitional Experience; Digital Jewellery

CSS Concepts

•Human-centered computing ~ Human computer interaction (HCI)~HCI theory, concepts and models

INTRODUCTION

In this paper we present the evolution of the Dialogical Sketching. The method involved iterations of sketches that capture aspects of participants' experiences of transitions, screen-printing them onto the centre of an A1 sheet of paper – leaving space for them to capture how they felt about themselves and how they saw the relationship between the

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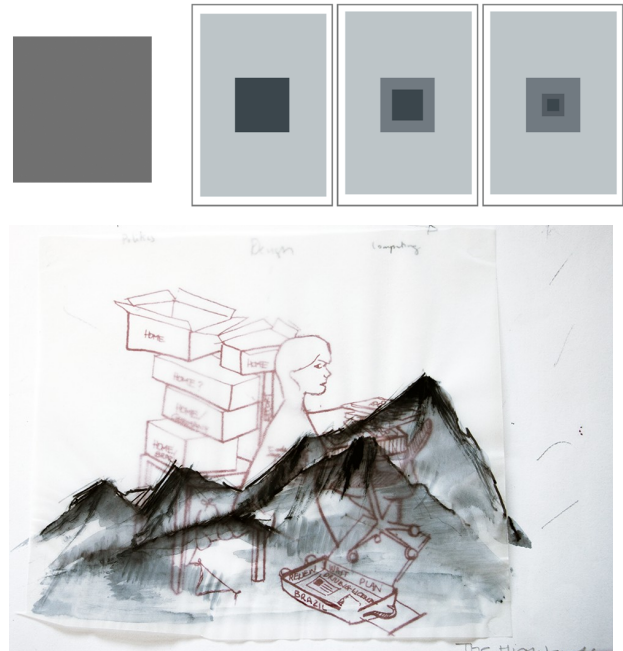


Figure 1. top: The process of Dialogical Sketching method. Iterations of sketches capture aspects of self in a visual way.

bottom: Layering of participant and researcher's images to create another iteration of Dialogical Sketching.

places they consider home in a visual way. After participants had drawn their responses the whole A1 sheet was then scanned and reduced in scale and reprinted onto the centre of another A1 sheet of paper to be further explored (Figure 1). This explorative process allows for a constant flow of sketches that could be created like a back-and-forth between two people in the form of a conversation. The effect is one of condensing visual imagery in order to free space around it for further sketching, and the selection of certain elements from the previous sketches to be the focal point of this new layer of interpretation and meaning.

Sketching is an intuitive and iterative process of self-discovery where ideas and thoughts are communicated through a form of visual dialogue. We refer to sketches as explorative drawings. Pallasma defines sketching as “*a fully haptic and multi-sensory reality of imagination*” [43] (p.58), where the hand-eye-mind and the sketch are in continuous dialogue leading to the development of thoughts and ideas in

unintended ways. Alongside the experiential turn in Human-Computer Interaction (HCI) [5], the role of sketching has become increasingly important aspect of interaction design research and practice [29, 54, 57]. It has been documented as a valuable tool for discovering new thoughts and ideas for design and communicating these ideas and processes with others [2, 9, 11, 33, 53]. The value of sketching in understanding one's lived experience within HCI, remains under-explored, however. We suggest that as HCI community engages with research on life transitions [22, 41, 48], the practices that are associated with the discipline must also evolve as new methodologies are needed to inform the design of personally meaningful objects.

Those living with an unsettled and disoriented sense of self, that is, going through micro-transitions associated with living between two countries and cultures, can provide rich input for the design and development of digital artefacts, such as digital jewellery. However, it can be difficult to extract meaningful experience and input for design via relatively simple methods such as interviews, or unsupported solicitation of ideas. Design probes [6, 37, 62] offer opportunities for participants to make connections and trigger creative patterns of thought but are not always appropriate for the sustained dialogue that might be needed to unpick the complexities of lived experience and micro-transitions over longer periods of time.

Transitional lived experience and sense of self is unique to the individual, and as such, requires a process that celebrates and empathetically aligns with the needs and desires of that individual [64]. Working with a probe approach [6, 63], sketching can offer tailored opportunities for dialogue and understanding between researcher and participant. By working closely with individual participants over long periods of time, Dialogical Sketching can capture temporal and emotional experiences, and provide visual analogues for sense-of-self. Dialogical Sketching is a visual, two-way conversation between researcher and participant, involving the creation, re-situating, and addition of sketched imagery over a period of time to both inform the design of new artefacts, and create, in itself, a deep personal story in the form of sketched imagery. This is a sensitive, and tailored approach, offering to empower the individual and enrich the potential of design probes as dialogical tools with participatory engagements.

Participants co-created sketched imagery with the researcher, layering, adding and evaluating their visual dialogue. Each new set of sketches enriched the knowledge and empathetic understanding between researcher and participant, resulting in the sensitive recording of deep conversations surrounding sense of self.

Design and HCI researchers ought to understand the very personal and idiosyncratic traits of individuals in order to design digital objects that offer potentially rich and meaningful experiences for people in periods of transitions. Therefore, it is important for the community to think of ways

that make people comfortable in order that they are able to communicate personal aspects of their lives with the researcher. Within this research, we contribute to creative ways for engaging participants in conversations around their sense of self with the method of Dialogical Sketching. This work explores the extensive background behind Dialogical Sketching in relation to lived experience, spanning multiple disciplines and approaches. The related work and context not only set out definitions of this space but is a discourse in helpful research and of value alongside the technique. The theory is given grounding in the form of a longitudinal study in visual dialogue using Dialogical Sketching, providing a repeatable method for those working in investigations of sense of self, and for wider discourse in Human-Computer Interaction (HCI).

CONTEXT & RELATED WORK

This research is concerned with the conception of digital jewellery to support the short-term transitions to sense of self that people experience when living in/between two different countries, and specifically when traveling between these. For this inquiry, we define short-term micro-transitions as experiences that people face periodically or frequently, in contexts and specificities aligned to their lives that gives them a rich backdrop for the design of digital technologies and – in particular – personal, meaningful digital artefacts, such as digital jewellery. Whilst less dramatic than life-transitions and not as easily attributable to a specific event, short-term transitions are nonetheless contexts of experience that can disturb our personal equilibrium cause us to seek forms of comfort. Although in this paper we focus primarily on the method of Dialogical Sketching as an explorative way to investigate these aspects of sense of self, we also explain what we mean by sense of self, and our methodological approach to understand lived experiences in dialogue through the use of creative means. We then move on to describe the method and how it evolved with each participant.

Understanding Sense of Self as Reflexive & Dialogic

With “self” or “sense of self” we mean the unique attributes that distinguish us from others, attributes that bring different parts of our existence together by persisting through changes or opening the way to becoming who we want to be [50]. In this research, self is understood through its emergence and transcendence within a societal and cultural setting [17], where people create narratives to make sense of themselves, plan their lives, and shape their behaviour [16, 39, 56]. The self is reflexively understood by the person in terms of her or his biography [16] (p.25), and is always in relation with the other, not as binary opposition, rather in a relation of simultaneity [24]. This relation of self/other is continuously re-specified, and, in Bakhtin's terms “consummated”, through dialogue [1]. Bakhtin suggests that each of us has a surplus of seeing about oneself, and a surplus that has been given to us by others. The difference between the two is a relation of otherness. In following his thinking, only in the presence of the other person can we better understand

ourselves, as each of us can see things about others that others cannot see about themselves (similar to the Johari Window from modern psychology) [35]. This is particular important in the context of transitions as during such periods of time, the coherence of a self-narrative is being challenged [44] (p. 360). In such periods, it is valuable to understand someone's experience and to offer support [42, 40] in order to prevent feelings of "lostness" and disorientation [30].

A Dialogic Approach to Design

McCarthy and Wright [38] draw on the Bakhtinian philosophy of Dialogism to open the space for design researchers to explore ways of communicating with participants that focus on the dialogue between the people involved (rather what each has to say, as in the norm in some cases). This approach is also suggested by McCarthy and Wright [38, 64] when designers are designing for people's rich experiences with technology. A dialogical approach to communication focuses on a mutual and responsive relationship through which participants and researchers blend their perspectives whilst maintaining their position and voice: *"It is in the presence of another person's voice that brings [participants'] particular perspective and experience into dialogue"* [38] (p.64). Holdsworth and Morgan [23] suggest that because micro-transitions are personal and implicit, it is necessary to engage with people through dialogue to elicit a more detailed and sensitive understanding of the meaning and negotiated practices of transitions.

McCarthy and Wright's premise of a dialogical approach to design is that dialogue is understood as a mutually responsive relationship rooted in trust and empathetic engagement with the other: *"something more than conversation or interaction. [...] One's sense of self is formed in responsive communication with others, within which a growing recognition of the other person's perspective and voice as something other nourishes a growing sense of self with a distinctive voice and perspective."* [38] (p.11). We understand the potential of a dialogical approach for eliciting rich insights on lived experience as a creative space, which enables people to be themselves and define themselves within a participatory engagement.

Design Probes Offer Space for Dialogic Participation

Recent contributions to HCI design discourse include a number of papers that suggest probes help designers gain a rich understanding of people's lived experiences [13, 14, 21, 36, 62]. Probes are invitations, similar to the method of Sack's "tickets to talk" [46] in supporting dialogue about the past, present and future: encouraging participants to talk about their lives and experiences in an open and often uncertain way [14]. They are commonly described as being creative tools for participatory research that pose questions through objects through exploratory, lateral and playful means as opposed to the neat, rigid process of gaining responses to questions [36, 47]. They have been used to enrich the co-creative, empathetic context between a

participant and a design researcher [62, 63]. Whilst probes seem to be providing an alternative frame to design in HCI, they have undertaken many adaptations and some of the essential characteristics of the method have arguably been left behind in some cases [7, 6].

We acknowledge that there are significant challenges in designing and deploying probes to be sensitive to both participant and context, but what we highlight the formidable complexities in interpreting probe responses and taking them further within a program of research. With an approach rooted in dialogue, we believe that some of the challenges can be overcome. The method that we have developed – which is scaffolded by sketching – takes into consideration that an important aspect of dialogical participation is that it is concerned with how researchers and participants form relationships of trust and mutual understanding which allow them to understand each other's point of view, and themselves, in gentle and sensitive ways. With this framing in mind we explore sketching within the probe approach as an explorative process that is open to interpretation.

Sketching in Human Computer Interaction

Sketching as a process, skill, and interrogation is valued in design focused areas of study but can also help those from technical backgrounds to engage and understand their experiences [55]. Within HCI, sketching encompasses (for example), design processes [29, 57], the act of creation [55] works as an input [27], output [60], and can produce items for analysis [53]. The ability to sketch can improve with training [34] but fundamentally begins as an innate ability in human beings [10] thus lending itself as a method to work directly with almost all participants. HCI research has long sought to harness the benefits of sketching in digital tools [26, 51], and even improve on them (e.g. in generating 3D objects from 2D sketches [25]) but there remain differences – namely the "interrupt" of digital devices to the initial thought process [60], and the low cost ease of the traditional, hand drawn sketch [53, 58]. For reasons such as these, Goldschmidt suggests that manual sketching is very much "still relevant" in our current, technology-centred society [20] and it is this approach to sketching that we embrace in our method of designing digital artefacts.

Sketching as Explorative, Sketching as Interpretive

During the process of sketching, new relationships are created on the sketching surface, resulting in what Schön called the drawing's "backtalk" [49]. More specifically, a sketcher sees in his/her sketches new clues, which in combination with his/her mental configurations can trigger new meaning and development in unintended ways. Pallasma [43] and Gedenryd [15] agree that it is impossible to know if the line on the paper comes first or the thought of an intention. *"In the arduous processes of designing, the hand often takes the lead in the probing for a vision, a vague inkling that it eventually turns into sketch, a materialisation of an idea."* [p.8]. Among others, Brodsky [8] emphasizes that the significance of the sketch for the maker arises from



Figure 2. Sketches made for each participant (from left to right P1, 2, 3) after the initial meeting with each of them to visualize aspects of their sense of self. The sketches feature a figure at the centre representing each person and were divided into home (left side) and work (right side).

and is defined by the process, instead of being a merely a preconception. This is true of sketches for artistic means, but also those created during inquiry and as part of the design and making process within the field of HCI [54]. Sketching as a process can help us ask and answer questions, but also create a point of analysis from both researcher and participant generated images [32, 53, 58].

The ambiguity of a sketch is another valuable feature of the sketching process. Buxton points out that *“much of [a sketch’s] value derives from it being able to be interpreted in different ways, and new relationships are seen within them, even by the person who drew them.”* [9] (p.113). This ability to interpret sketches and “excavate” them for information is inherent to all of us from an early age [19]. From a child’s drawing, to the sketches of a skilled designer, the sketch is in dialogue with oneself where *“one reads of the sketch more information than was invested in the making”* [19] (p.83). This feature can be explored in sketches of lived experiences, such as in Berger’s sketched responses to his deceased father. On reflection, looking at the drawings that he made in front of his father’s coffin – he scarcely sees a deceased man; instead he sees aspects of his father’s life. Unlike a photograph (that represents reality), a drawing contains the experience of looking and has its own time, offering a space for new interpretations. *“For each form, between the pencil marks and the white paper they marked, there was now a door through which moments of a life could enter [...]”* [3] (p.42).

THE EVOLUTION OF METHOD

In order to better situate Dialogical Sketching, we here describe the research project design. The rationale of the research was to explore the potential for digital jewellery objects to support an unsettled sense of self and to create propositions for discourse with design research in HCI. The Dialogical Sketching method resulted from initial exploratory workshops and became a focus for the research. We chose sketching because it related to the participants’ and researchers’ design practice and offered a space for dialogue with multiple interpretations.

Research Project Design

The participants were three interaction design researchers born in different places in the world, but who currently live and work in the UK, and periodically (approx. 2 – 3 times per year) travel back to their home of origin for short breaks. P1 and P3 have a background in product design, P2 in performance arts. When the research was conducted, all were working within HCI and design research. The principal concern in the recruitment was: Firstly, the creation of opportunities for personal engagement in conversations about self and feelings of being-in-between; and, Secondly, the creation of opportunities for digital jewellery to support fluctuations and changes to one’s sense of self during the journeys between two places of home. The reasoning for the small number of participants was in order to get to know each other and engage with them in personal dialogue over a lengthy period of time (up to two years). All participants presented as open-minded, and it was thought that each could bring an interesting discourse to the context of the research.

The chosen participants suited the aims of the research firstly because they had the experience of living in two different places and traveling between them, and secondly, they were able to enable a particular level of discourse around the potentials of digital technology in relation to the resulting artefacts developed during of the study. In order to get under the skin of these participants’ lived experiences, we followed a participatory design process which started with an initial meeting with each of the participants, followed by an exploratory workshop with all of the participants together, and then a subsequent number of one-to-one meetings that lasted for a period of two years. Throughout the 2-year study, participants were encouraged to contribute to the research in ways that they felt right to them. The first author was attentive to what they felt comfortable to share, sharing some of their values. Feelings related to the notion of home and belonging are personal, often implicit in nature, and not straightforward to share. All the material gathered (the travel journal, the probe responses, the transcript of the discussions, the first author’s personal reflections) were analysed in an open-ended way and with sensitivity to the data being shared.

This openness helped the researcher to start identifying themes that could inform ideas for the design of digital jewellery. These ideas were presented back to participants during one-to-one meetings (approx. 5-7 meetings with each participant) as the research progressed. These meetings were recorded, transcribed and analysed with a view towards design outcomes. Our thinking was continuously shaped and shared with the participants during these meetings, as we developed ideas further in dialogue. We turn now to describe the evolution of the Dialogical Sketching method.

Origin of Dialogical Sketching as Method

The first phase of the study was conducted on-board a stationary aircraft environment [28]. A series of 6 design probes were given to the participants during this event for completion on the plane. The probes were aimed at understanding how the participants felt when journeying back to their country of origin – and then returning to the UK. Following the flight, the participants were interviewed as a group about the experience and in order to reveal their additional reflections about the micro-transitions one experiences when traveling between two places/countries each perceived in some sense by them as home. We present here the context and start of the visual dialogue, the deployment of a sketch-based probe during the Aircraft workshop, and the subsequent development of the Dialogical Sketching Method based on the workshop experience. The method played out differently with each of our three participants and we adapted our engagements to fit in with each individual.

Pre-Workshop

An initial meeting with each participant (P1, P2, P3) gave us insights into their lives. From the things they shared, the researcher created a sketch for each participant of things about their feeling of home and transition (Figure 2). The sketches featured a figure at the centre representing each participant and were then divided into home (left) and work (right). The aim was not to try to communicate findings or ideas, rather present a sketch concerning personal aspects of transitions as the start of a visual conversation with each participant.

During Workshop

A series of six design probes (*Comfort me*, *Chew of Familiarity*, *Neither Here nor There*, *Parts of Me*, *Parts of Me and You*, *Untitled Pieces*) were given to the participants during this event for completion on the plane [28]. Here follows a brief description of the 6 probes before a more detailed description of the sketched-probe which informed the development of the Dialogical Sketching method.

The *Comfort Me Kit* contains a sleeping mask, comfort cushion and earplugs. Questions are embroidered onto each of the probe pieces to encourage the participants to think about the feeling of being in-between and their bodily presence.

The *Chew of Familiarity* is a jewellery-like probe that invites participants to chew a piece of gum and focus on their senses; the sense of smell, taste and feelings or physical places that have a significant meaning to them.

The *Neither Here Nor There* is an object that reveals the question “When does the transition start and where does it end” when participants place the flight ticket (given to them in advance) on the side of the piece. The probe questions the temporal and spatial dimensions of the transition; when does the transitional period start and end, and what does this mean for the participants’ sense of self.

Parts of Me is a bespoke piece depicting the sketch that was made for each participant after the initial meeting and then placed in an embroidery hoop. Each sketch was screen-printed on fabric and then covered with a layer of thermochromic ink. Once heated up (over 27degrees) the ink layer disappears and the sketch can be partly seen. This interaction is reversible.

The *Unknown Pieces* are two intentionally surreal objects with an ambiguous function that the participant is asked to name and to think of their function. The probes provide resources of inspiration and invite participants to explore design possibilities.



Figure 3. Participant’s response to The Parts of Me and You sketch based probe.

Parts of Me and You (Figure 3), is a sketch-based probe comprising an A1 sheet of paper with a sketch composition that has been drawn for each participant in the centre of the page. The participants are asked to draw things that they think are not represented in the sketches and that they feel are missing to them. In essence, we asked them to add other elements of who they were and how they felt in relation to living in two different countries. The probe was therefore a reflexive tool for participants to see themselves in an abstract, visual way and continue the sketch with similar visual language.

Post-Workshop

In a group discussion at the airport, immediately after leaving the aircraft, the participants made it very clear that the sketched probe had been a very interesting and reflective opportunity for them within workshop. As the participants were engaging in this non-literal form of dialogue, they were seeing value in the things that it was unearthing for them and value in the sketches as artefacts in their own right that were a visual representation of something meaningful to them.

From this point on the first author sought designerly ways to continue the visual conversation as there were clear indications that sketching was providing an interesting modality for the exploration of feelings and suggested meanings that the participants attributed to a sense of being in transition. The researcher then spent time collating the probe responses and start to form some responses that could suggest designs of digital jewellery. The principle designerly response was to sketch out the responses given in the probes, and it is the evolution of this method and how it became a dialogical tool with participants that we now focus on in the paper.

EXPLORING DIALOGICAL SKETCHING IN PRACTICE

We believe the system of reducing sketches creates space for new layers and presents a visual continuity to the dialogue, therefore contributing to the quality of the participants' responses. As the process we followed was explorative in nature, we were open to how the participants responded to it over time. We now describe how each participant engaged and how the process was adapted sympathetically in order to continue a visual dialogue over time.

How Sketching Evolved with P1

Figure 4 shows the development of the visual dialogue with P1. We followed the process of shrinking down the initial sketches and centring them in the middle of a large sheet of paper allowing P1 to see how her narratives evolved and adding her own reflections. The iterations of sketches depicted images from pictures that we received from P1, elements of her probe responses during the plane workshop and our interpretations of what was important for her in each of the locations of home. Key elements in the sketches were the sea and the mountains (Figure 4). The sea was the place where P1 felt reassured in her home country. Now her place of comfort was the Highlands of Scotland. In Figure 4, the

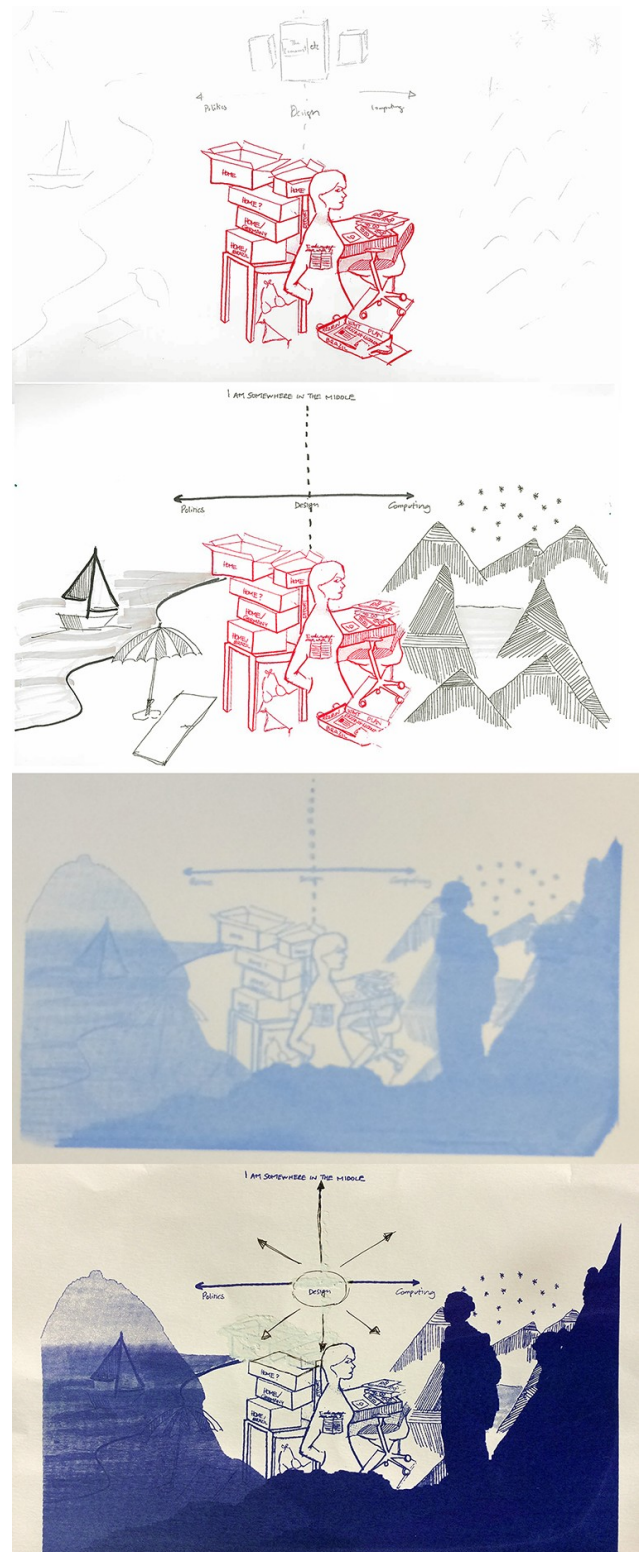


Figure 4. The development of the dialogical sketching method. From top to bottom: P1's sketched response on the sketched-based probe; researcher's next iteration of sketched; researcher's second iteration of sketching; P1's visual response.

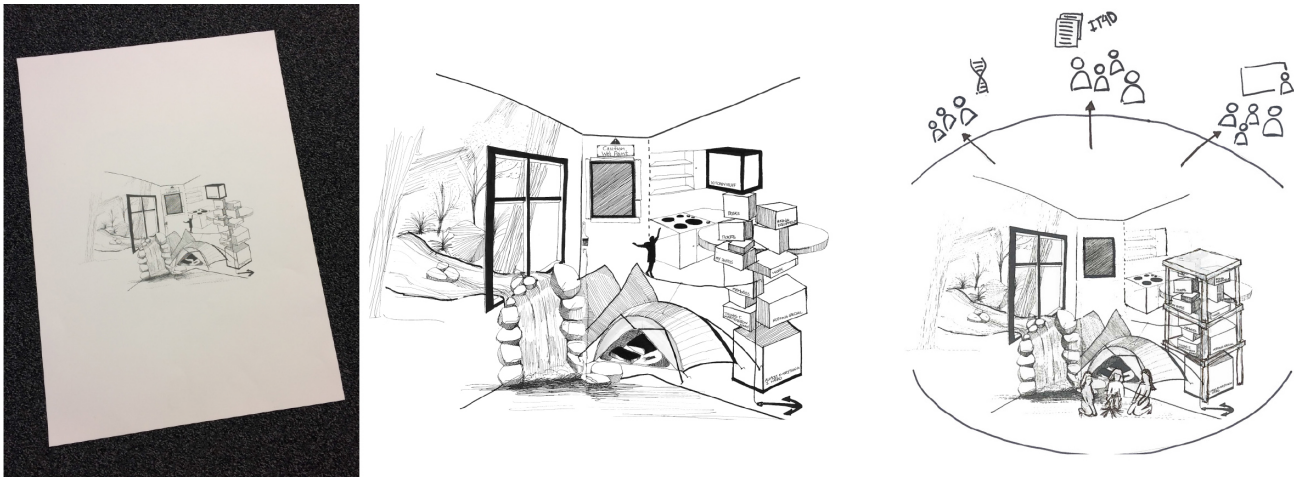


Figure 5. From left to right: a) Researcher's sketched response on P1's life transition (centred on an A1 sheet); b) Close look at the sketch; c) Close look at P1's sketch as a visual response to the initial sketch.

first author inked the sea and the mountains from P1's response to the sketch-based probe, emphasizing the significance of nature in both locations.

Following the initial application our method, we shrunk down the new iteration and we screen-printed the sketch on an A1 sheet. Shortly after the first engagement, we received a small number of photos from P1 that she sent to us because they were significant for her and our process of sketching as a dialogue had caused her to think of them. We responded to the pictures with another iteration of the sketching, where we enlarged a layer of the sketches based on two of these images. These images were screen-printed as silhouettes of female figures, one climbing a mountain and the other at the top of the mountain (Figure 4, second from bottom). We sent this iteration of the sketch to P1 via the post and she visually responded to it by sketching her reflections and deleting some elements of the drawings (Figure 4, bottom). When we met again, we discussed her reflections and a piece of digital jewellery inspired from the sketch and her love for nature. She found herself reflecting on her life and her feelings of 'being in-between' through adding to the sketch and discussing:

"Climbing is part of me and it contributes to who I am[...] I remember when I was at Everest [...] and I was sick, but I got the to the top - I did it! I am really proud that I did it! It is like a reward being on the top - That's how I feel when I look at the picture - it is an achievement." (P1)

In two years, P1 went through the transition of buying a new house and settling down in a city. We felt that finding the space and time to explore a transition of going back to her home of origin was challenging, but one that P1 wanted to attempt. To overcome this challenge, we found sketching took on a different role. This time sketching acted as a way to capture the life transitions that P1 was going through at Otime. Figure 5 is P1's response to our sketch for her transition into the new house. Although the focus of the study was not to capture all the transitions our participants would

going through over time, it was important for us to keep the conversations going and to allow the process to evolve in ways that felt appropriate for participants and could be led by them at times. A key thing in this sketch is again her connection with nature.

During a phone conversation, P1 shared that the main reason why she had chosen the property was because it was close to a park and a river. As depicted in the sketch nature gets into her house as a fundamental part of her life. We felt that she described her sense of self as unbalanced, which was represented in the sketch by a woman balancing on a rope. In her sketched reflections P1 erased this figure, the wet paint on the wall and some removal boxes from the composition. Through her sketched reflections she also added a fire and three people sitting around it. She put the whole composition inside another circle, which suggested that this transition is not separate from the rest of her life. P1's process is how we typically expected the method to proceed in practice. We repeated the method for another transition in her life and P1 responded to that sketch with a new one. This could be considered as another iteration of our method of Dialogical Sketching.

How Sketching Evolved with P2

P2 was not able to engage with this research according to the method described due to events in her life. However, in our attempt to reflect on personal stories and the experiences that P2 had shared with us, the first author made a series of sketches. These captured places, buildings and locations with personal significance including P2's hometown (the UK town where she now lives and works) and a city significant to her (see Figure 7 below). With these sketches the first author found a way to be sensitive to participant's wishes by not discussing family matters, leaving the ambiguity of the images to create a space where she could fill in details about her life and feelings of 'being in-between'. In a follow-up meeting the researcher shared the sketches. P2 was touched by this and shared many personal stories by focusing on different parts of the sketch's composition. She added layers

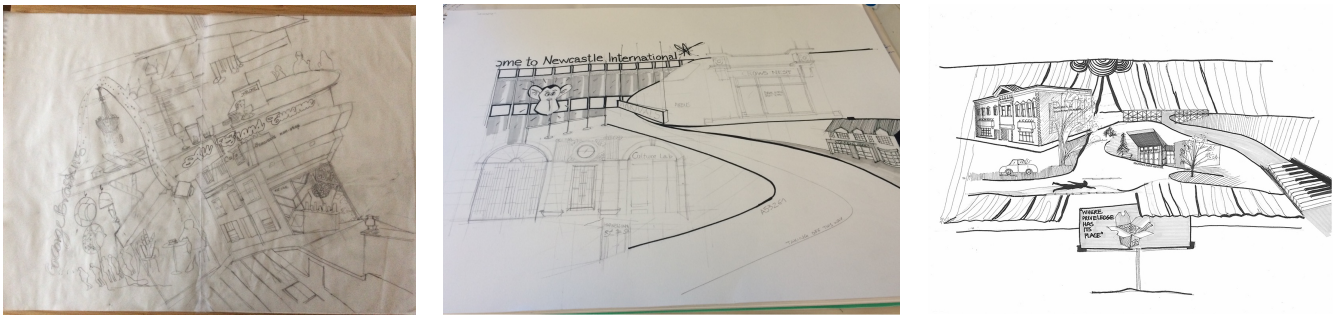


Figure 7. From left to right: Development a sketch that depicts places and objects that hold memories and stories from a place where P2 has a special connection; Working on a sketch that illustrates the place where P2 lives and works; P2's hometown.

of personal meaning as she verbally combined details of the drawings into new compositions and talked about different elements coming together.

“In the image, especially this one with the street that comes towards us, in this, it is sort of runs past us. But in your images, there is a real sense of movement amongst the cities. When you are in the city there are all those different aspects of the city, maybe it’s interesting to me that are all memorable to you as you move through the space you might move closer to one in a way from the other, but even though you might be here, this part of the city is always influencing you.” (P2’s responses to the sketch of her hometown)

Soon after the meeting we sent her two copies of each sketch in the A1 format. Although P2 did not respond to the sketches visually, the sketches served to elucidate rich conversations on issues that mattered to her during our meeting. The sketches acted as a “way in” to sensitive issues that otherwise might have been challenging to articulate.

How Sketching Evolved with P3

Like P1, P3 faced new transitions in her life; family issues, finding a new job and moving to a new city changed her priorities during our time working together. During that period the first author had multiple telephone conversations about events in her life and discussed how her life was changing whilst she was back home. As a response, the researcher sketched these conversations and captured visually what was being talked about. In a follow up meeting, the researcher invited P3 to draw her feelings and thoughts P3 suggested drawing things on one sheet together in a collaborative way (Figure 6). This approach had some degree of success but brought its own challenges. It did not feel personal. It felt forced as both the researcher and the participant did not have the time to sketch at our own pace. What was produced was more like note taking or brainstorming. In the process, they both started labelling things and constructed meaning for the sketch together in an analytical way rather than through developing sketches based on personal responses. This totally changed the dynamic of the process and looking critically at it we felt that this exploration was very different what we initiated with the sketched-based probes.

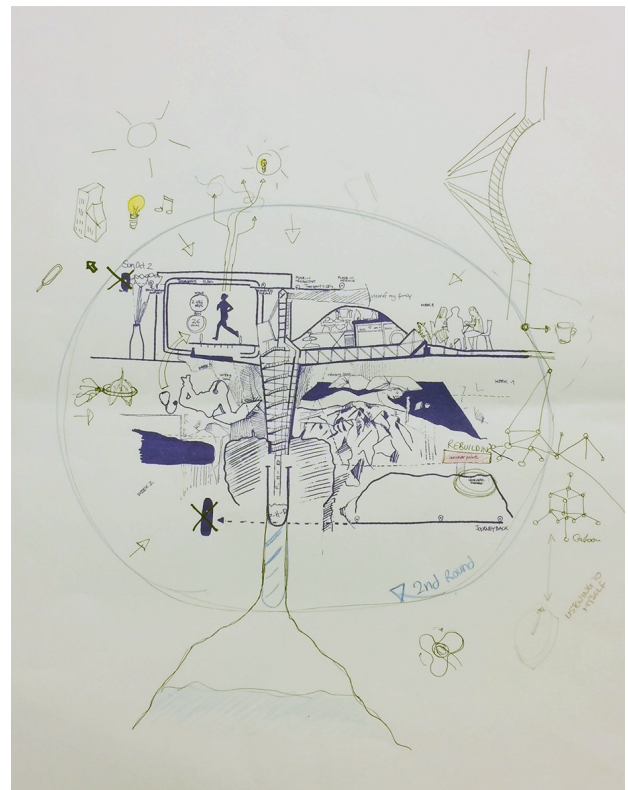


Figure 6. Collaborative sketching with P3

FURTHER REFLECTION

In our exploration of designing forms of creative engagement to support a dialogical exploration of self/other, the first author used sketching as an explorative, open to interpretation and visual method to share experiences of transitions with three participants. While researching aspects of self is inherently challenging, the series of sketched-based probes provided a way to engage people in imaginative ways. Through sketching the researcher and participants were able to capture layers of personal meaning and share with each other aspects of sense of self in visual ways. This provided alternative ways for participants to find their voice in the study and a sensitive way to discuss personal aspects of lived experiences.

Non-Descriptive Method and Openness to Interpretation

One goal of the research was to gain a clearer understanding of how the participant felt when adjusting to their sense of self depending on which country and ‘home’ they were in. Through sketching, the first author was able to approach this through gentle and imaginative means. Participants saw elements of the sketches that had meaning to them or could be interpreted in personal ways. They shared images with the first author that were personally significant to them – but that the researcher never knew the full meaning of. Many of the personal aspects of the sketches could be best understood by the participants themselves. This was a dynamic that the researcher was happy with. As in any dialogue, not all inferences are known by all parties and this is not the aim of our dialogic approach. Many parts of the drawings were purposefully left undefined, unless the participants felt comfortable to share aspects of it. This built a sense of trust between the researcher and participant.

Capturing Layers of Personal Meaning

The participants appreciated the time the first author spent in making the sketches and connected with them on a personal level. On the initial sketch, they added layers of meaning with their sketched response. This layering of data visually supported reflection on the important elements of the participants’ lives. Through the process of sketching, the first author added her own interpretation of what each participant shared with the researcher, and by doing so, the researcher could better understand their concerns, values and what mattered to them. In turn, they could better understand her response to their own narratives through visuals.

Each sketch had different themes and different sections, which could be viewed individually or as a part of the whole sketch. We saw this as being a useful feature of the method. Although the information in the sketches was personal, we found it important that there were few identifiable references to participants’ lives. We clearly saw a value in having a silhouette in the sketches. The abstract figure helped them to identify themselves in the sketch and connect with it. The ambiguity of the sketch let them connect the lines of the illustration in a unique way by adding their own interpretation of what is important to them and how they see themselves in the current moment.

Capturing the Feeling of “Now”

One finding from the research is related to the temporary nature of short-term micro-transitions. The feeling of being in-between does not last. Through a sketch, a participant’s current period of transition was crystallised in an image. The sketches captured the transitions that the participants were going through and their reflections of the “now”. This process allowed the first author to find ways to respond to what was happening to them at that moment and for them to share their sketched reflections on where they were in life. When they were responding to the sketches, they focused on the current moment. We saw that it is important to capture a participant’s reflections in the moment and share it with them soon after. We experienced (in P3’s case) that leaving a

significant amount of time between the creation of the sketch and the collaborative sketched-response created challenges and changed the dynamics of the engagement.

DISCUSSION

In this paper we focus on how sketching can elucidate reflection on layers of meaning conveyed both explicitly and implicitly in the engagements of three participants into a research on digital jewellery and sense of self. We presented the exploration of Dialogical Sketching and the potential of this method within participatory co-design engagements. Dialogical Sketching is a sensitive, non-descriptive method that opens alternative ways of documenting sense of self and capturing layers of personal meaning over time. Within the research, we discovered the potential of the method to offer alternative ways of documenting sense of self in a temporary way, whilst it offers an opportunity for participants to share their thoughts and feelings in non-literal ways. In this section we will discuss how Dialogical Sketching is a process of self-discovery [19] and a form autoethnography [12].

Dialogical Sketching Supports Self-Discovery

Dialogical Sketching is a process of self-discovery because through the sketches the participants experienced a dialogical exploration of their sense of self. Through the sketches they could see themselves through the researchers’ interpretation of how they felt and what mattered to them, which helped them better understand how they felt in the moment. This is particularly helpful when people are going through a difficult situation in their lives. Keeping track of their changing sense of self is helpful because they can build a better dialogic [24] and reflexive [16] understanding of what they are going through during the transition. As McCarthy and Wright [38] argued it is in the “*presence of another person’s voice that brings [participants’] particular perspective and experience into dialogue*”. It is only through this perspective of the other that people can understand each other and themselves.

Dialogical Sketching as Autoethnography

As result of the Dialogical Sketching process, a flow of sketches was created like a back and forth between the first author and P1 in the form of a visual dialogue which revealed the full potential of the method. In this case, Dialogical sketching can be considered to be a form of autoethnography. We adhere to the description given by Ellis [12] who states that “*autoethnography is a back and forth movement between examining a vulnerable self and observing and revealing the broader context of that experience*” (p.373). Dialogical Sketching can become a form of autoethnography through self-discovery because it supports participants’ in documenting and visualising this discovery. The autoethnographic accounts were documented through sketches that explore what it means and feels to experience changes to one sense of self when feelings of home and belonging are in question. A main objective of autoethnography is to make connections with personal experiences of the author and inform others about a phenomenon [12], which something we experienced through

the Dialogical Sketching. The process of shrinking down a sketch, centring it in the middle of a sheet of paper creates a rule of engagement and a clear, limited space to sketch inside. This method suggests open interpretation, rather than representing something definite, which opens spaces for mutual appreciation and reflections on self over time. As emphasised by Plummer [45] *“What matters [in autoethnography] is the way in which the story enables the reader [the researcher in this instance] to enter the subjective world of the teller [the participant] - to see the world from her or his point of view, even if this world does not ‘match reality’”* (p.401). Dialogical Sketching has the potential as a method to support an iterative visual dialogue with the researcher and participant which is not bound by certainty, but more by inference, interpretation and suggested meanings.

Dialogical Sketching can be valuable (both when researchers are designing and deploying probes, but also when unconnected to the probe method) in that it is sensitive to both participant and context, and additionally when thinking of participation over time. This novel approach to sketching contributes to discussions on the value of sketching with HCI and Design research in understanding one’s lived experience [3] and enriches the probes approach which turn to discuss next.

Probe Responses Continue Through Design Iterations

We see probes as a valuable tool, but we believe that researchers should be prepared to let the method unfold over time [62,63] and see the method as a way to open a creative space between the researcher and participants so that new meanings can emerge through dialogue. We align with McCarthy and Wright’s thinking that for the method to be successfully dialogical researchers ought to give participants alternative ways to find their voice and propose different alternative “ways in” to the conversation [38]. The method of Dialogical Sketching sits alongside other visual methods in design and HCI research such as context mapping [52] and the use of portraiture [4], which have been documented as being valuable tools that can be used to open conversations with people about their lives. A sustained dialogue through visual methods in the design of HCI research is rare. It is here that we believe our method of sketching is a novel contribution. The long-term ongoing potential of Dialogical Sketching and the active role of participants’ in interpreting probe responses are the contributions of this method to the wider context of the probes within HCI and Design research community. Probes are often one-off exploration in gathering insightful and inspiring narratives of peoples’ experiences, by offering a series of activities or objects that people can respond to in playful, creative and open-ended way [6,13,14,28,31,36,62]. Dialogical Sketching offers a way of looking at probe responses as being ongoing, where participants and researchers add their interpretation by adding new layers of personal meaning.

Tolia-Kelly’s visual methodology [59] is the only example we found in literature that explored a way of looking at sketching as a medium of expressing one’s feelings and emotions, inviting others for an open-ended interpretation of one’s sense of self. Participants took part in creative workshops where they were encouraged to visually record their emotional and sensory responses to the Lake District landscape in the UK through drawings. Participants’ drawings formed the basis of 40 paintings made by a landscape artist as part of the project. The artist further added his interpretation of the group responses retrospectively to the artworks. The final pieces were presented in an exhibition that aimed to offer a space for dialogue. Tolia-Kelly states that the research was *“the beginning of a process of recording the values of the landscape, not the final product”* p.337 [58]. Similar to our method, this example of practice aims to create a space where people can share their feelings and thoughts through iterative stages.

We see potential in exploring further the notion of “now” and building upon the system of Dialogical Sketches in future work, to sustain a long-term ongoing dialogue between researchers and participants when focusing on aspects of sense of self. This connects well with the temporal nature sketching and its characteristic as a medium to be developed and explored over time [15, 18, 43, 48].

CONCLUSION

This research seeks to find ways to empower an unsettled sense of self in the context of short-term transitions. In our exploration of designing forms of creative engagement to support a dialogue between the design researcher and participants, we developed the method of Dialogical Sketching, which suggests a visual way to explore aspects of self. Firstly, we introduced the development of this method within participatory co-design engagements, and then we reflected on how the method evolved with our participants. By working with these participants and seeing how they engaged (or not) with the Dialogical Sketching system we revealed both the potential of – and the challenges to – this method. We argue that the method firstly enriches the potential of probes, secondly encourages discourse in open and often uncertain ways, and thirdly can enable sustained participatory engagement even through challenging circumstances. We suggest that the method of Dialogical Sketching can be valuable both when researchers are designing and deploying probes, and also when they are unconnected to the probe method. Finally, Dialogical Sketching can be sensitive to participant and context over a long period of time.

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