

Design interventions as a form of inquiry

Joachim Halse

Royal Danish Academy of Fine Arts - School of Design

Laura Boffi

Copenhagen Institute of Interaction Design

Things could be different

This paper is about research methods that are explicitly oriented towards qualitative empirical exploration of the open-endedness of the world. In short, we propose that design interventions can be seen as a form of inquiry that is particularly relevant for investigating phenomena that are not very coherent, barely possible, almost unthinkable, and totally underspecified because they are still in the process of being conceptually and physically articulated. We see design interventions as a supplement to existing research methods, one that favors and explores unsettled and imagined possibility, yet employs empiricist virtues of embodiment, empathy and documentary forms.

An underlying assumption of many research methods is that the world is a pretty determinate set of discoverable entities and processes (Law 2004:9). The dominant image of scientific research methods is that they aim for clarity and precision, seek to eliminate sources of bias, and strive for unambiguous outcomes. The so called 'randomized clinical trial' pose as the highest standard of rigorous research into human science experimentation, and as a matter of self-evident logic (Dehue 2002:79). In *Logic: The Theory of Inquiry* (1938) John Dewey defined inquiry as "the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole". In other words, Dewey's inquiry is about reducing uncertainty. This is *not* the primary commitment of design interventions.

The word intervention is in everyday use typically understood as goal-oriented interfering in a course of events to promote a preferred state; usually defined by an external force, for example diplomatic, military, or medical. Literally it means 'coming between'. In experimental design research, however, the word intervention is less about conflict resolution or correction. Design interventions are increasingly seen as a research method, not to test a prefigured solution to a defined problem, but to enable new forms of experience, dialogue and awareness about the problematic to emerge. As such it is often employed as a strategy of complexification.

Let us take an example of a design intervention, and see how the term is being used in a design research project exploring energy usage:

“Replacing notions of objects, products and even services with placeholder concepts such as “interventions”, Switch! explores a range of alternative design expressions, methods for prototyping concepts and strategies for placing design concepts in discursive contexts. (...) This is part of an ongoing investigation of design interventions (as things or happenings) into systems in order to effect an awareness of the values involved - such interventions might operate to expose habits, norms and standards, or to shift and renegotiate actors/variables.” (Bergström et al 2009)

The design intervention is a placeholder concept, which because of its ambiguity allows for a wider range of conceptual alternatives to be explored. And the immediate objective is not so much to arrive at closure, as it is to prompt reflections about the issue in discursive contexts.

The employment of early materializations or placeholder artifacts in knowledge production is typical of design: *"Most problems worth worrying about are complex, and a series of early experiments is often the best way to decide among competing directions. The faster we make our ideas tangible, the sooner we will be able to evaluate them, refine them, and zero in on the best solution."* (Brown 2009:89)

Although the design intervention in Switch! explicitly introduces a new artifact, it poses more as an open-ended research instrument to expose habits, norms and standards, than as a resolution of the issue (of energy usage). What happens when the conventional outcome of design processes, namely material, visual and bodily articulations of new possibilities are used to raise new questions? Utilizing basic design methods such as sketching and prototyping, design interventions are often playful, experimental and open-ended in setting up a frame for exploring a given topic in a new light. We should not underestimate the importance of the object, just because it is de-centered. In his essay "Design Fiction" (2009) Julian Bleecker reconsiders what might be the role of the material design object, if not the resolution itself, in more speculative realities:

"If design can be a way of creating material objects that help tell a story, what kind of stories would it tell and in what style or genre? Might it be a kind of half-way between fact and fiction? Telling stories that appear real and legible, yet that are also speculating and extrapolating, or offering some sort of reflection on how things are, and how they might become something else? (...) Design fiction objects are totems through which a larger story can be told, or imagined or expressed. They are like artifacts from someplace else, telling stories about other worlds." (Bleecker 2009)

To what extent can the particular stagings of empirical dialogues around evocative design artifacts (variably named probes, props, and prompts in the design research literature) be seen as a materially integrated version of ethnographic inquiry into people's concerns, aspirations and imaginative horizons?

Transformed Ethnography

Ethnography had a major debate and crisis in the 1980's, where the impossibility of objective and neutral representation of human life was increasingly acknowledged among researchers. The seminal books "Writing Culture" (1986) and "Anthropology as Cultural Critique" (1986) revealed ethnographic methods as inescapably political,

and always also re-creating the realities they set out to describe. The idea of an objective stance from which to view and understand human life was deconstructed, and followed by a range of increasingly collaborative scholarship, including performance approaches, participatory and action research methods that seek to co-produce knowledge, and engage people emotionally through other media than conventional academic papers (for example presented at the 2012 Victoria, BC, Public Ethnography conference, <http://publicethnography.net/home>).

The particular ethnographic field techniques of in situ observation and interview have been widely adopted and employed in various newer professional design fields that value the inspirational potential of qualitative studies and potential for collaboration, such as interaction design (Löwgren & Stolterman 2004), design thinking (Brown 2009), commercial innovation (Kelley 2005), service design (Polaine et al 2013), and public sector innovation (Bason 2010). Also in more academic circles of design research, have ethnography gained relatively much exposure and application (e.g. Dourish 2006 and Koskinen et al 2011).

Some methodological transformations have happened during this: particularly new transdisciplinary methods for bodily exploration of the possible have emerged. Core ethnographic aspects of empathy, open-endedness, attentiveness to situatedness, have met with designerly competencies of articulating new possibilities through design proposals, expressing ideas and hypotheses in rich media from paper sketches, 3D models, service blueprints, bodily performances to interactive dialogue tools, experience prototypes, critical artefacts and speculative design objects, and video-based design documentaries are all examples of these methodological transformations that carry traces of ethnography.

So what we have is a range of hybridized methods that cut across ethnography and design, with a relatively high practical value, yet with limited foundation in terms of their status as research methods. With the notion of design interventions we seek to contribute to the repertoire of inventive methods that explore the happening of the social, as introduced in the book *Inventive Methods* (Lury & Wakeford, 2012).

Design interventions is a materially innovative method that is explicitly oriented towards exploring the contemporary as an open moment, open towards “the possible”.

Almost 20 years after *Writing Culture*, John Law in “After Method: Mess in social science research” (2004) continues and extends the argument about how methods don’t just describe social realities but also help to create them. Law’s reaction to the fact that the world is often messy, is to encourage messy methods: “simple clear descriptions don’t work if what they are describing is not itself very coherent” (2004:2).

And this is often the case with design interventions. They seek to probe into peoples pains and pleasures, their hopes and horrors. And they often involve things and practices that are vague, ephemeral, unspecific, change shape or don’t have much form at all. This is exactly the case with the following example of a design intervention based on an ethnographic study of palliative care and terminally ill patients.

Weaving Relationships: A Design intervention



Figur 1 What is this? It is not a moment of ethnographic observation of everyday nurse practice, nor is it a staged scene of a fictitious future story either. Yet, it is both. As an experimental moment betwixt and between modes of existence, this is a design intervention playing with situated possibility and constraint.

Italian interaction designer Laura Boffi began her final project at Copenhagen Institute of Interaction Design with 20 days of ethnographic fieldwork in the hospice Antea outside Rome (June 2010). Here, with an occupational therapist as gate keeper, she observed and interviewed patients, staff and relatives as they experienced end-of-life relationships. In parallel literary resources was consulted to learn about anthropological perspectives on medicine, rationality and experience in general, and in particular death as a rite of passage, material culture associated with death rituals, and shamanism (Plus visits to palliative care experts, eg Istituto Maestroni). However, her training as a designer, particularly with respect to materials and media, heavily influenced Laura's tools and techniques for the fieldwork.

By engaging patients in photographing important situations, Laura tried to get to see the hospice as they saw it.

Some female spouses sat quietly for long hours, watching over their dying husband by the bedside. To build on their personal craft skills, and to provide a different kind of medium for the one-sided dialogue, Laura invited them to embroider while they tried to, or wished they could exchange emotional stories about the past, present and future with their loved one. One shows the two of them on a trip to the coast she had imagined with her husband, and conveys an emotional story of preparing for loss.

In concordance with contemporary psychological research (Ecce homo - If this is a man: "Humanization and de humanization of pain in the end of life" May 2010, Padova, www.endlife.it) the hospice nurses expressed that they too, once in a while, needed someone to talk to, to unload. Which made Laura create a little research tool to prompt nurses to talk more about this, in situ. It consisted of a little bag with three pebbles and a miniature notepad, entitled "3 events that are as heavy as stone in your work. Remove a pebble from the bag when you overcome one of them." This dialogue tool allowed the nurses to symbolically treat their difficult emotions, and jot down a few words about them in or after the situation, and open the possibility of sharing them back with the researcher.

One nurse explained about her particular way of giving patients the space to communicate without talking directly about death if the patient does not want it, and yet without lying. She calls this her 'small contract' with the patient, which allows her for example, to say the patient: "anytime you feel worse, you say it to me, and so I adjust the therapy for you. It is important that you tell me."

In the office area of the palliative care staff the patient list is displayed on a magnet board for administrative purposes. Even in here, where only professional staff members come, the direct indication of proximate death is avoided. A small butterfly magnet is used to indicate when a patient's condition worsens.

From the various research techniques, a more general insight was formed: The

palliative team develops specific strategies and language to talk about forecasts and deteriorating health conditions both with each other, with relatives and with patients. In the cases where some of the involved try to avoid direct and critical conversation about death, they instead develop and employ symbols and stories to talk around sensitive issues without having to lie or hurt themselves or others. (This finding is in alignment with research presented at the workshop “Livet og dets afslutning på tværs af virtuelle og realistiske rum”, Copenhagen University, 2012).

Although the palliative care staff are experts in pain relief and physical care, this is only a part of their work. A major effort concerns managing relationships between patients, families and themselves. Palliative care is dependent on an alliance between patients, their relatives and hospice staff.

Although some patients are surrounded by family and friends, their conversations can seem superficial and impersonal. Moving physically out of the confined and clinic-like room, connoting hospitalization and illness, and away from the direct face-to-face communication can feel liberating to some patients, relatives and staff, and help to support their experience of meaningful interaction.

The field study could have stopped here, and gone deeper into analysis mode, and contextualized the insights in socio-historical terms. However, for a researcher trained in interaction design, this is not the default. Instead, translating the findings of the field study into a challenge for further exploration of opportunity *is* the default. This is the question Laura formulated for her project: How can we strengthen the alliance between patients, relatives and the palliative staff, by supporting the sharing of their experiences with deadly disease, loss and sorrow?

Staging elusive end-of-life relationships

Two months after the initial fieldwork, Laura returned to the hospice for two days with a set of three designed but open-ended objects (Aug 2010), and a method for staging a collaborative video exploration of what meanings they might take on in the

context of the hospice, and in the hands of the local participants – a design intervention (footnote: all the patients participating in the initial field study had passed away in the meantime. However, the niece of one of the patients taking photographs, reached Laura to see the last pictures her aunt had taken, and thus starting a new reciprocal conversation among researcher and relative on memories.)

The proposed concept for symbolic communication and meaning creation that supports patients, relatives and the palliative team in sharing individual representations of the disease, and to create meaningful relationships in the patient's last time. It consists of

- 1) hollow matryoshka dolls for developing the alliance of patient, relative and staff. The matryoshkas can contain and present each person's experience of the deadly disease using a collection of symbolic objects.
- 2) a message station hanging in the tree outside; where to start new conversations outside hospitalization context, and without face-to -face confrontation. The conversations are private and intimate.
- 3) a textile blanket. Gives the sensation of being in continuous contact, spiritually and physically, when death occurs through palliative sedation.

The actual design intervention was framed through a verbal introduction as a collaborative exploration of new possibility rather than an evaluative test of the objects as prototypes. So, people often don't talk directly about death, but through various workarounds and coping strategies. But what *would* they talk about if they could? The objective of the design intervention was to make the local participants comfortable with the objects as “things to think with” and “things to act with”, in such a way as to build also on their imagination of how hospice life would be with some form of assistive communication tools for exchange of difficult messages and emotions.

The first object, the matryoshkas are introduced to Andrea, a nurse, and he begins to interpret the symbolic objects inside:

”The third one, you could think it is not nice, but the scissors (are important)

because the patient uses them to detaching from his life. (...) An idea could be to bring the doll with me only when I visit that patient. I could bring it on my trolley and then take it with me to the patient's room. (Andrea enters a room, imagining that the patient Luigi is in bed) Ciao Luigi, good morning! I filled my matrioska with 3 objects what about you? (as there is no one to respond, Andrea continues to explain) There is a pair of scissors, because you have told me you are tired of this illness. And you wanted to end it up as soon as possible...." (translated from Italian, video).

The same object, the matryoshkas, are also employed in conversation with Nilde, a friend of a patient named Laura, who passed away some days before the interview. She imagines what would happen if she had put symbols in her matryoshka for her friend:

"This is like denuding oneself, because maybe later you have to explain why you did this thing... With Laura, I don't know, it might have been difficult... She might have required an explanation on the things I put in my matrioska. (...) Maybe a person put the symbols with extreme honesty... I do not know if you can be so honest when explaining them... We can't ignore that... You can enter the hospice door, but you will never leave from it... (...) A relative to a patient can still have some kind of hope, so the symbolic objects you put inside the matrioska could be symbols of hope. Maybe it could have been... But I think it could work because its like another tool to communicate, sometimes it's hard to start a conversation and get more intimate... There's no occasion, maybe... having objects inside this matrioska could be a key to open doors that are difficult to open." (translated from Italian, video).

The second object, the messaging station is playing with the possibility of displaced conversations. As the hospice already worked consciously with the outdoor space, as distinct from the rooms and as an escape from the setting and its constraints on emotional interaction, the station is hung from a large tree in the garden.

Margot nurse to her patient: (after writing, as reflection:) I thought of a person who has just passed away... I spoke to him now, by writing. (...) The tree is the space where we go and say what we feel and think. Maybe we speak about things we never speak about. It gives serenity for the two minutes you are sitting there. We can abandon ourselves to our suffering here... (translated from Italian, video).

The third object suggests to leave open a channel of communication during terminal sedation. It is a blanket resembling the big tree with the communication station. A nurse, Lorena, is in a patient room and imagines herself with the patient in the moment of terminal sedation. She holds the blanket tight in front of her with both arms:

"The terminal sedation is a particular moment and situation... For me it is each time special, a particular goodbye. (...) (Lorena stands in front of a bed) As it often happens, I imagine that if the patient lies here... before giving him the sedation, I clean him and make the bed neat, and then I use this blanket because it is a symbol of us, I would say... since we have been using the tree to speak indirectly. And we even shared it with the family (Lorena spreads the blanket over the hospital bed). But I think this moment is just our moment. It is the patient's and my moment. (...) I actually imagine the body being all wrapped... on the cheeks as well, like if there was a baby (arranging the blanket so as to tug in a person) If this was the face... hmmm... too big this face (Lorena tries to form the pillow as if it was a person's head, and smilingly speaks directly to the researcher): If you prefer I can lie down myself! (a light giggle from the researcher) And so... I would put the blanket close to his body and... As I usually do, I hug my patients. We stay like this as long as we feel like. And I sit like this... At the bed side (Lorena gives a long hug to the pillow wrapped in the blanket). We stay close for a while... And then it depends on what the patient asks for, if he can speak... And I let the sedation go to him (pointing to an imaginary tube from the medication holder towards the bed) I stay there and sit on the bed. I do not like to stand while the patient is over there, you know..... well... As I usually do, I will say to let himself go and not to be afraid...

because there will be myself here to watch over him... and..... Have a nice journey (smiles gently).” (translated from Italian, video).

What is this?

What should we make of these three small empirical encounters captured on video? And the embedded use of photo, embroidery, pebble stones, fabric bags, diaries, 3D printing, sewing machine, cardboard and string alongside more conventional interview and observation techniques? Are they ethnographic representations of hospice practice? Not exactly. Are they prototype tests of new communication products? Not quite that either. Our proposal is that they exemplify something in between, and that what they present is messy, ephemeral and not very coherent.

This design intervention and the phenomenon it aims to explore are deeply implicated in each other. Understood as a research method, the design intervention does not afford a transparent representation of the phenomenon, free of personal interpretive bias. On the contrary; the researcher’s personal experiences with loss is arguably an important pre-condition for establishing this kind of empathic exploration in such a sensitive, and normally very difficult to access field. The methods are not standardized, nor are they rigorous, and most importantly they do not produce clarity. On the contrary, the methods are highly contingent and locally invented or adapted, they are employed opportunistically and unsystematically, and most importantly they produce complexifications, bifurcations and multiplicities.

They deal with something that resists full articulation because what they circle around is only almost possible. And here we do not talk about possibility as free floating fantasy, but possibility that is empirically situated and exposed to critical investigation by the people it concerns.

There are no clear demarcations of when these methods deal with describing the existing world as is, and when they prompt the human and non-human actors of the field to enact new imaginaries. It is as if these methods assume that *at the same time*

we can learn about the socio-material practices around dying and appreciate that these same practices are being unsettled, re-imagined and re-invented.

We don't want to distort this ongoing mess into clarity. Instead, we propose design interventions as a particular form of messy inventive inquiry that has little in common with the experimentation of randomized clinical trials, which set the current standards for scientific approaches to hospice practice. Design interventions, understood as a form of inquiry, sit well in line with the social science approaches outlined in "Inventive Methods" (Lury & Wakeford) and "After Method" (John Law), although they draw on sources like the 'creative disruption of everyday life' (Thompson 2006) as much as the Malinowskian ideal of fieldwork, or Popperian ideals of scientific knowledge.

By this onto-epistemological move we may not obtain solid knowledge of our field, but we will, hopefully, be able to explore a far wider range of realities, and engage consciously in their contested making and remaking.

It seems to us, that design interventions do pose as an intriguing candidate for an exploratory research method that combines qualitative empirical research informed by post-structuralism on the one hand, and of the generative methods of constructivist design research on the other.

To what extent design interventions, with their stagings of empirical dialogues around evocative probes, props, and prompts, can be seen as a materially enhanced version of ethnographic inquiry into people's concerns, aspirations and imaginative horizons, is, however, a question we prefer to keep open for discussion.

Bibliography

Bason, C. (2010). *Leading Public Sector Innovation: Co-creating for a Better Society*. The Policy Press, Bristol.

Bergström et al. (2009). *Symbiots: Conceptual interventions into urban energy systems*. Engaging Artifacts 2009, Oslo, www.nordes.org

Bleecker, J. (2009). *Design Fiction*. Near Future Laboratory.

Boffi web

Brown, T. 2009: *Change by Design*. Harper Collins, New York, US.

Clifford, J. and G. Marcus. (1986). *Writing Culture: The Poetics and Politics of Ethnography*. Berkeley, University of California Press.

Dehue, T. (2002). A Dutch treat: randomized controlled experimentation and the case of heroin-maintenance in the Netherlands. *History of the Human Sciences* 15:75.

Dewey, J. (2007)[orig. 1938]. *Logic: The Theory of Inquiry*. Saerchinger Press.

Dourish, P. (2006). *Implications for design*. Proceedings of the SIGCHI conference on Human Factors in computing systems, Montréal, Canada, ACM Press.

Kelley, T. (2005). *The Ten Faces of Innovation*. Doubleday, US.

Koskinen, I. et al. (2011). *Design Research through Practice: From the Lab, Field and Showroom*. Elsevier 2011, Waltham, USA.

Law, J. (2004). *After Method: Mess in Social Science*. Routledge, Oxon, UK

Lury, C. and N. Wakeford (eds.). (2012). *Inventive Methods: The Happening of the Social*. Routledge, Oxon, UK.

Löwgren, J. and E. Stolterman. (2004). *Thoughtful Interaction Design: A Design Perspective on Information Technology*. London, The MIT Press.

Marcus, G. and M. Fischer. (1986). *Anthropology as Cultural Critique: An experimental moment in the human sciences*. Chicago, University of Chicago Press.

Polaine, A., L. Løvlie, and B. Reason. (2013). *Service Design: From Insight to Implementation*. Rosenfeld Media.

Thompson, N. (2004). *The Interventionists: Users' Manual for the Creative Disruption of Everyday Life*. Massachusetts Institute of Technology and Massachusetts Museum of Contemporary Art.