The Power of Being In-Between

How design research can empower multidisciplinary teams

Increasing multidisciplinary collaborations in the creation of Product Service Systems (PSS), spurs the need for a deeper understanding of the position of the design researcher, who often finds her- or himself creating cohesion between the different disciplines involved, through a range of activities from analysis, synthesis and facilitation, to inspiration, instigation and speculation. This paper will identify this position as an in-between position, which contributes to the practice of multidisciplinary teams on a strategic level. Temporarily entering the space in between disciplines is furthermore identified as an empowering experiences for members of such teams. It can open up doors to novel opportunities and outcomes, by enabling multidisciplinary teams to engage in processes that are more strategic because they construct new meanings and value for people, rather than 'just' creating solutions for problems. The reflections contained within this paper derive from experiences of the authors encountered in recent PSS design and company wide innovation projects in the domains of care, and mobile communication and computing. Besides being based on several case-studies, the paper will draw from reflections of thinkers in (inter)disciplines as diverse as futurology, service design, filmmaking, and design thinking.

Key words: [Paper Template, Guides, instructions, author's kit, conference publications]

1. Introduction

Design research is understood in many ways (Koskinen et. al. 2011[?]). In this paper we focus on design research as a contribution to innovation efforts by multidisciplinary teams, in both mixed contexts (academia, non-profit and industry) and in industry alone. Design research in such situations is a mix of design and research, and the two can never really be separated in any meaningful way. Academic research can be done through design for instance, and ethnographic research can be integrated with the design effort. This paper therefore talks about design researchers instead of designers and/or researchers. Sometimes the design effort may be larger, sometimes the research effort will be, but always they will both be there, sometimes even hard to distinguish, influencing each other, and the combination of the two is what matters most.

By presenting examples from very diverse interdisciplinary collaborations we will explore how, working in-between professional disciplines and silos in organizations, design research has particular roles in multidisciplinary projects. Such roles vary from intermediating between different partners to intervening in situations that are in constant flux, as well as from storytelling to facilitating analysis, and from editing to synthesizing. By adopting such an in-between position, design research is not subject to the regulations of the well-defined boundaries of silos and disciplines in many projects and organizations. Thereby those who take up the role of design researcher gain the freedom to create meaning and explore possibilities on a strategic level for complex PSS development and even at times for the organization as a whole, rather than providing merely solutions for individual problems or 'just' so-called user requirements. Moreover, we hope to illustrate the possibilities such an in-between position of design research offers and the implications it poses, as a contribution to ongoing discussions on the new roles for design, in particular on more strategic levels in innovation.

2. Being in-between

Shift from focus on process to focus on position of the designer. This is the space in-between, "the interval to which established rules of boundaries never quite apply" (Trinh)

Speaking nearby instead of about. (Trinh) is a way to avoid to talk about the disciplines/silos and thus avoid entering them, at least for some time.

In-between position is an act of resistance, resisting being a 1-to-1 translator, communicator, visualiser - someone who executes. A move away also from the focus on communication in multidisciplinary teams, and on creating shared understanding. If shared understanding is no longer the main goal, being a translator, communicator or straight forward visualizer becomes less relevant. Instead, engaging in conversation with multiple disciplines and improving the quality of that conversation becomes more important.

Design researchers play an important role in setting up that conversation and keeping it going by nurturing it. On the one hand this is done through artifacts that design research creates for this purpose, such as a service blueprint or a probe, a prototype or a filmed story. On the other hand through interactions between people in the multidisciplinary teams that are brokered through the artifacts for instance, and through other interventions such as workshops with the multidisciplinary teams.

3. Artifacts

Create descriptive rather than prescriptive design research outcomes.

Creating meaning not truth (Trinh) through interactions in workshops.

Allow to check up on the sources of these meanings

Sourcing ingredients for the teams to do their magic themselves

Design's artefacts serve to materialise the possibility space (Candy)

4. Interactions

Evoke empathy with the people in the film as fellow humans - by speaking nearby them, not about them is again a way to do this.

purpose of analysis is not to define what the design team should do. Instead it serves to create meaning that provokes responses and discussion.

Discussion that becomes more precise over time (Geertz)

The films we make serve as boundary objects, as shared references

preventing people from drifting off on tangents of their own beliefs and hangups

complexity may seem daunting in industry contexts at first,

but if supported well it may allow multidisciplinary teams in their current siloed environments to innovate cohesively – and therefore effectively.

5. Emerging practices

Focus should be on inter-relations, interactions, shared objects, from which joint practice emerges (Strompff)

The need to collaborate across boundaries in large corporations where innovation efforts are no longer contained within small groups separated from the daily business is evident. As a result the coherence of the innovation effort is in jeopardy however, as many ideas about where to go and what to do inevitably arise and start to compete. Boundary crossing and boundary objects offer the opportunity to mitigate this process and foster cohesion.

Carlille focuses on the consequences of boundary crossing. It acknowledges that there's more at stake than 'just' communicating knowledge; in particular the consequences of new knowledge for the organization, silo or team that has to respond to it are also key factors. This ties in with the manner in which whole industries can resist change, as we've experienced in our work over the past two years. (Semantic and pragmatic approach to boundary crossing, not syntactic)

Discussion?
Conclusions?
Future work?

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2. Embracing uncertainty

Interdisciplinary ventures between designers, artists and scientists inevitably leads to a crossover of work methodologies and ideas. An exchange which often begins with set roles and goals for collaborators. Design, more often than not, will redefine its initial question (Kimbell 2012), changing the nature of the debate. This is a reframing of the initial brief, brought forth by a generative practice, which will extend beyond the pre-defined boundaries of any collaboration.

Designers will play with boundaries, an exploratory practice which is experimental as it entails a questioning of meaning and set definitions. An example can be found in EVASIA, a design fictions proposal currently under development within the G-Motiv project, as part of a Research Associateship at Design Academy Eindhoven. In the context of drug addiction, EVASIA addresses the use of smell as a storytelling tool for addiction patients, by integrating the scent expertise from the Olfactive Design Studio (ODS) from International Flavours and Fragrances (IFF). In this manner, EVASIA expands upon G-Motiv's list of collaborators and knowledge, enhancing the project's focus area by highlighting the relevance of sensory and subjective insights.

This approach situates designers as instigators or generators of situations. Furthermore, it implies a wider scope for design, through an expansion which takes place in more than one direction at a time. These deviations to the official storyline, contribute to a level of ambiguity and uncertainty, which designers must often cope with throughout the project's development. Nevertheless, it is through such side exercises or accidents that meaning is created, essentially informing the design process.

2.1 The position of the designer

This inquisitive approach is understood through a shift from focus on the process of design, to focus on the position of the designer. Trinh T. Minh-Ha is a filmmaker and theorist whose philosophical writings explore liminal stances, serving hereby as inspiration to validate the in-between position of the designer. Design's explorative nature, requires an understanding of the interdependencies between the different categories at play, which means working within the spaces where these merge and coexist.

This is the space in-between, described by Trinh T. Minh-Ha as "the interval to which established rules of boundaries never quite apply" (T. Minh-Ha 1992). Within the G-Motiv project, it results from the crossovers between the scientific partners (Delft University of Technology, University of Amsterdam, Vrije Universiteit, Erasmus University and the Technical University Eindhoven), the creative partners (Design Academy Eindhoven, Monobanda, IJsfontein, RANJ and Novay) and the service or healthcare providers (Berenschot, Careyn and Brijder). These liminal spaces constantly challenge set structures, furthermore alluding to a shift from seeking a solution to a pre-defined problem, to that of interventions on behalf of the designer.

The in-between position, allows an active influence on the project's knowledge generation processes, validating these by facilitating an exchange of information between the different collaborators. This exchange comes from embracing those "elements that escape the structure", which often lead to "accidents that are created by letting go of things while you are in full control of them" (T. Minh-Ha 1992). Through this approach, design engages in the co-evolution of a multidisciplinary project from different angles, by understanding the different aims and needs of its collaborators. The designer becomes an interventionist, as these exchanges lead to "blueprints and artefacts along the way [which are] designs towards the final design"(Kimbell 2012).

In this manner, the expansive character of design will create and explore new options, rather than limiting itself to pre-existing avenues. An example can be found within EVASIA's Play the Future! workshop, which brought together G-Motiv's creative partners to speculate upon the future of games. The workshop looked beyond the frames of G-Motiv, applying game theorist Leigh Alexander's three postulates on the future of games (games will never end, games won't be perfect, games will be played everywhere) to the three focus areas of G-Motiv: physical stimulation (Alzheimer patients), mental stimulation (addiction patients) and stimulation of pro-social behaviour (workplace environment). Extending beyond the project's immediate goals, the workshop led to outcomes which explored alternative possibilities of collaboration between the creative partners, resulting in three game concepts: tools to catalyse social group behaviour, crowdsourcing emotions through smell, and ringtones for mindsets (see Figure 3).

Figure 3: Play the Future! workshop results extended beyond G-Motiv's immediate goals, exploring the future possibilities of games.

2.2 Meaning, not truth

Working within such liminality means design does not own anything. Designers become intermediaries, which explore and question relationships between science and society, bridging the gap. The parallel stories they conjure from such activities bring forth real desires and anxieties, "creating meaning, not truth" (T. Minh-Ha 1992) as they extend beyond mere sums of facts. This knowledge does not aim to be scientific, as it is not based on objective facts. Rather it derives from a systematic and academic way of producing knowledge through a discussion which becomes more precise over time (Geertz 1973), here as the projects, designs and exchanges with G-Motiv's collaborators evolve.

This often requires the need to speak various 'languages' in order to facilitate the necessary exchanges between healthcare providers, patients, scientific, creative and industrial partners. In this respect, design's artefacts serve to materialise "the possibility space" (Candy 2010), since design prototypes themselves also operate as interstices between "the world that is and the world that could be" (Candy 2010), pointing towards alternative processes for the construction of meaning. This implies a merge between fictions and reality, exploring the possibilities of alternative stories. (see Figure 4).

Figure 4: Stuart Candy's diagram of "possible, probable, and preferable futures as subsets of possibility space" (Candy 2010).

3. To speak nearby

Exploring alternative ways of expression, creates platforms design can engage with, from a human-scale. This approach involves a constant play between different narratives, engaging with fact and fiction. In this manner "the narratives shift back and forth between being informational, reflective or analytical, and being emotional, trivial, absurd or anecdotal" (T. Minh-Ha 1992). In the context of EVASIA, this suggests a direct engagement with the reality of the patients, where design provides the necessary tools and voice for the construction of their own definitions and meanings.

This is intrinsic to design's concern with the "human or micro-scale" (Kimbell 2012). Such co-creation devices and processes differ from mere data gathering exercises. Instead, they generate awareness, by drawing attention to the politics of health and its social manipulations, whilst actively contributing to the construction of personal identity.

Taking an in-between position is therefore also an act of resistance, as design does not intend to "speak about", but to "speak nearby" (T. Minh-Ha 1992). This is how designers confront "truth", questioning pre-set notions and processes. This is often threatened by the risk of instrumentalisation faced by design, within multidisciplinary collaborations, such as G-Motiv. Seen as a mere one-to-one translator, communicator or visualiser, such risk denotes the use of design as a tool to validate set meanings. A notion that corresponds to a "management perspective" which conceives design as "another phase" (Kimbell 2012) within the project. This approach, detaches design from its explorative ability whilst limiting its creativity.

The in-between position of the designer, ensures an experimental and critical practice for design, as it refuses to reduce its role "to that of a mere device to authenticate the message advanced" (T. Minh-Ha 1992). Instead, design will provoke new ideas, awareness and reflections, by pointing to the processes that construct new meanings. Furthermore, by speaking nearby, design is no longer subject to the regulations of those well-defined boundaries, therefore gaining the necessary freedom to explore the possibility space (See Figure 6).

Figure 6: To "speak nearby" means designers operate within the possibility space (coloured areas), from an in-between position.

FROM BOUNDARY OBJECTS POSITION PAPER

Over the past two years STBY and the in house team of a large global communications corporation have formed a significant new partnership that is reframing conventions about research practices which are faster, more accessible to non-researchers, and provide traceable outcomes to the client teams. Together we found that the best

tactic to engage design and business teams was to create descriptive rather than prescriptive design research outcomes - sourcing ingredients for the teams to do their magic themselves. Curated short films with rich consumer evidence inspire discussion and allow collaborative interpretation.

NOTES

Being in-between as a design researcher creates the freedom to move beyond the boundaries of the disciplines that surround you, but brings the obligation to make connections between the disciplines. Boundary objects are the artifacts (and results of their work) that allow design researchers to do both things at the same time.

5. References and Citations

Use a numbered list of references at the end of the article, ordered alphabetically by first author, and referenced by numbers in brackets [2,4,5,7]. For papers from conference proceedings, include the title of the paper and an abbreviated name of the conference. Do not include the location of the conference or the exact date; do include the page numbers if available. See the examples of citations at the end of this document. Within this template file, use the References style for the text of your citation.

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6. Examples Citations

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