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Design materials designed for - and by - Co-designers

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ABSTRACT

In co-design projects, today, the engaging and well-explored open platform of Participatory Design (PD) workshops is increasingly being supplemented by various web-based platforms and infrastructures. However, what can we learn from these events when designing such web-based platforms and content “for” co-designers? The specific focus here is what we can learn from practically considering design materials. Based on a series of three related examples of co-design activities with design materials designed “for” and “by” co-designers, in this paper it is argued that *small-scale material-methodological considerations* can play a role in creating engagement and shared ownership in a co-design project. The examples discussed are from initial workshops in the newly started interdisciplinary DAIM-project mainly based on a pilot project within the area of trash handling in Denmark.

Keywords

Design materials, co-design, platforms, learning from workshops, “for” and “by” co-designers.

INTRODUCTION

In practice everybody is not equally involved in a distributed co-design project (e.g. due to interests, allocated time and economical resources, etc). Therefore, for an innovation process to move on, often some participants are planning, preparing and designing “for” the others. Yet, to support the various co-designers to continuously be engaged and feel responsible in a co-design project, and not just have fun when they join, it is argued; that formats, design materials and representations should not only be designed “for” – but at times also “by” - the co-designers.

Today many co-design projects are practically organized through a combination of “face-to-face” and web-based platforms. Within PD we have a long and well-explored tradition of using workshops as open platforms for bringing various stakeholders together in a design process [e.g. 9]. A

variety of specific methods and techniques, often including explorations of various types of tangible artefacts, have been developed to engage the participants during such workshops. Just to mention a few; co-designing is for example organised around collaboratively exploring user insights [e.g. 10, 8], playing games for various purposes [e.g. 2], developing prototypes [e.g. 4] creating various types of scenarios [e.g. 6], etc. Yet, such different types of co-design activities during a workshop can still take a variety of forms. Apart from organisational, social, political, spatial, etc considerations, very practically the activity depends on the chosen specific format, the focus, the design materials as well as the medium of recording and representing the process and outcomes.

Today, such events are often supplemented by a variety of digital platforms and infrastructures, such as blogs. They support interactive engagement in between events and during the ongoing distributed design process. However, in our experiences, these platforms are (still) to a large extend mainly used for digitally sharing documents and recordings or representations for example from shared events such as workshops. Therefore, what is discussed here is one perspective on what we can learn from the well-explored and engaging open platform of PD co-design workshops, when also using and designing web-based platforms and infrastructures for co-designers.

CONSIDERING DESIGN MATERIALS

Like mentioned above, during PD workshops co-designing is very often supported by various types of tangible working materials –here called “design materials” like phrased by Halse [8]. Some can be characterizes as being “raw” and/or “metaphorical”; such as pen and paper, post-it notes, foam blocks, clay, disposable cups, pipe cleaners, small-scale person icons, game-pieces, tennis balls, hats, etc.; while for example printed (field) images, access to video-clips, foam & paper mock-ups, prototypes, etc could be called “pre-designed” design materials. Whatever the starting point, they are all viewed as objects, which are explored, combined and added meaning during co-design activities.

Just to mention a few, various others have explored and named design materials. Generally Ehn [7] argues that they can establish shared “Language games” and in a broad sense Star argues that they can become “boundary objects”

among the participants of various disciplinary backgrounds [12]. More practically, for example Brandt calls design materials “Things-to-think-with” [3], Capjon phrase them “Communication catalysts” [5] and Sanders use “Make tools” [11] for engaging people during intense workshops. Here, “design materials” are both viewed as what is brought into a co-design activity (e.g. “raw” and “pre-designed” design materials such as foam and printed images) and what comes out for the continuous design process (e.g. co-designed mock-ups, landscapes of objects, collages, visual representations of these, etc.).

Based on a variety of experiences, design materials can definitely engage multidisciplinary participants in quick and fruitful ways during workshops, however, they rarely do the job purely on their own. Their exploration and use typically has to be framed, formatted, focused and possibly facilitated. These considerations; and the choice e.g. to use foam boards instead of clay, 2D instead of 3D objects, printed images together with videoclips, etc; are what I call *small-scale material-methodological* decisions. Furthermore, to exemplify qualities of design materials both designed “for” and at times “by” co-designers, in the following, three different but connected examples are briefly explained and later discussed.

EXAMPLES FROM THE DAIM-PROJECT

The three examples shared below are from the newly started [DAIM]-project - a methodologically-oriented co-design project aimed at developing a “Design-anthropological innovation model”, primarily based on a pilot-project within trash handling in Denmark [14]. The project – or the DAIM Design:Lab [1] - is a user-driven innovation research project. However, it is not led by lead-users [13], it is neither an example of close connections between producers and users [e.g. like many interactive computer games], but rather in many ways a quite traditional PD setup. It is open, event-driven co-design, primarily planned and organized by one of the research institutions to continuously engage the other partners (other research institutions, three design consultancy businesses and the main organisation taking care of trash handling in the Copenhagen region) and not least a variety of professional and everyday users.

Yet, as things become trash and (increasingly) trash become things through continuous processes of use, recycling and transformation, the case of trash handling really calls for continuous engagement. There are many routes to take and no final end products, so rather the aims and intensions are to engage people in specific situations for example through co-designing new user-driven in situ interventions, campaigns, products and follow-up activities.

The DAIM Design:Lab is structured around various platforms. A strong thread is a series of intense workshop

events, where co-designers address shared relevant topics and imagine possible new futures, often through exploring and adding meaning to different design materials. Apart from other meetings, field visits, in situ interventions, etc, additionally, to support parallel processes of co-designing in between the events, the team shares knowledge and materials from the events in the project blog (see Figure 3).

The following series of three examples have been picked from the initial 1-day co-design workshops, mainly aimed at creating engagement and shared ownership of the project.

Co-designing a “(trash)cake table”



Figure 1. “Cake table” of inspirational (trash)cakes provided and created “by” co-designers.

To spark the dialogue and get everyone personally engaged from the very beginning of the first workshop, the organizers had gathered a collection of varied second-hand plates, and had invited all their new project colleagues to bring various examples of “trash”. People were divided in smaller groups of 5-6 people, and the format allowed everybody to briefly show and tell about their examples. There were for example quite a few old-style mobile phones, a VHS tape, an old book, all the trash produced by one person in a three hour train ride, etc, etc. Then, in each group, the trash was grouped and labelled on 3-5 cake plates, and finally, together with the work of the other groups, all plates became part of a large inspirational “cake table” of trash! Together it gave an initial shared picture of some of the many types of trash which has to be handled.

Co-designing a landscape of use situations



Figure 2. Landscape of use situations (on white foam boards) created “by” co-designers.

For this middle-part of the workshop, the organizers had prepared some additional field cake-plates each containing printed field-images and comments from different quick anthropological visits (visible on the edge of the table on Figure 1). Based on short presentations of these initial field studies, each group choose a plate, and used it as inspiration for creating one or more concrete use situation(s) within the area of trash handling. The predefined format, set by the organisers, asked for the use situation to be captured and illustrated on the provided white foam boards (measuring 20 x 20 cm). Inspired by a field visit with a family saving everything, one example said “On the way to a Birthday – a gift-shop in the loft”. Afterwards, on top of a large shared underlying grid, the groups told each other their stories while co-designing a larger “landscape of use situations”. This activity was aimed to create a shared initial picture of possible use situations to address in the ongoing project.

Co-designing “dream projects”



Figure 3. A video-recorded “dream project” created and recorded “by” co-designers towards the end of a workshop. Here it has been made available on the project blog.

Partly inspired by use situations, like described above, as the last practical part of a co-design workshop, groups were now introduced to yet another format and set of design materials for creating “dream projects”.

Each group had to imagine and co-design one or more “dream projects”, which at least some in the group would like to do within the DAIM-project. A dream project was captured by briefly describing it on a grey flag on a stick, and by defining which actors would be necessary to carry through the project for real. These actors were annotated on green person-icons, also on sticks. Both were then stuck into either a relevant use situation or a new foam board. When ready, the group was assisted by one of the organisers, to video-record their 2-minutes story about the challenges and ideas they captured in the “dream project”.

By the end of the day, all the recorded “dream projects” were viewed in plenum on full-screens.

Afterwards, along with various other representations from the initial co-design workshop events, the video-recorded “dream projects” were shared on the project blog. Within the DAIM-project the goal is not to carry them through exactly as dreamt, but rather their condensed format makes them work as an easily accessible pool of ideas and challenges owned by all the co-designers in the project.

DISCUSSION

Based on various experiences also from other co-design projects, and exemplified through the three connected examples briefly described above, in the following it is discussed why we believe it sometimes is valuable not only to have design materials designed “for” but also “by” co-designers.

	planning formats	preparing inputs / design mat.	exploring, adding meaning	recording outputs, re-presenting
“Cake Table”	for co-designers by org.	by co-designers	by co-designers	for co-designers by org.
“Landscape of use situ.”	for co-designers by org.	for co-designers by org.	by co-designers	for co-designers by org.
Video-rec. “Dream project”	for co-designers by org.	for co-designers by org.	by co-designers	by co-designers

Figure 4. Overview of what is designed “for” an “by” co-designers in the three connected examples described above.

The many different PD techniques and methods designed for engaging various stakeholders in co-design, place an emphasis on the “face-to-face” collaborative processes of exploring and adding meaning (to design materials) “by” the co-designers. All three examples include this very central element, and the example of creating a “landscape of use situations” is one such example, where both the formats and design materials were planned and prepared beforehand by the organizers “for” the co-designers. Apart from people’s personal images and notes, the organizers were also mainly responsible for recording and representing the shared outputs. However, in the reported series of examples this activity was mainly meant to work as a mediator between the other two co-design activities.

For example inspired by the increasing use of probes as ways of establishing dialogues with users [10], we have also found, that it can be valuable for co-designers to bring

their own inputs or design materials to a co-design event. This was for example explored in the example of the “Cake table”, where the individual trashy contributions became part of the co-designed picture and pool of inspiring resources for the further work during the workshop.

Furthermore, with the increasing number of web-based platforms available, these become a more and more important shared part of a co-design project in between intense co-design events. They are used both for doing some of the design work collaboratively (which I have not touched upon here) and for sharing knowledge and insights for example from the co-design workshop (like exemplified in Figure 3). After a co-design event we typically share selected images and video clips of what happened; representations of mock-ups, collages and other co-designed artefacts as well as various types of written and illustrated documentations and representations, which of course are valuable to have access to. However, to avoid having to look through hours of video, a continuous challenge is how to record and represent the many insights gained during such engaging co-design events, to make them an actual shared resource designed for continuously engaged (often busy) co-designing co-designers. The last example of co-designing “Dream projects”, is one example, which we have successfully explored in several occasions, of how design materials as video-recorded wrap-ups or compressed representations from a workshop, were created and recorded “by” the co-designers during the event.

Many aspects affect co-design activities – among these material-methodological issues. It can be argued, that the complex situations of co-design workshops cannot be ‘squared-up’ in a matrix like in Figure 4. Yet, among many other aspects (e.g. sociological, political, organizational, spatial, etc. - which not has been touched upon here either) the events described are also composed of these different very practical elements of planning – preparing – exploring – recording. The point is not to aim for co-design to be a fully democratic process, but rather to put emphasis on how explicit considerations of what is designed “for” and what is designed “by” co-designers, can play a role in creating engagement and shared ownership in a co-design project. Therefore, the work presented should be viewed as an input for making *small-scale material-methodological* decisions when planning and preparing co-design activities, formats and design materials – both for workshops and web-based platforms.

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REFERENCES

1. Binder, T. and Brandt, E. (2008) *The Design:Lab as platform in participatory design research*. CoDesign, Volume 4, Number 2, June 2008.
2. Brandt, E. (2006) Designing Exploratory Design Games a framework for participation in participatory design?. Proceedings of the ninth conference on Participatory Design – PDC2006, pp. 57-66. Trento, Italy.
3. Brandt, E. (2001) *Event-Driven Product Development: Collaboration and Learning*. Ph.d. Dissertation. Dept. of Manufacturing Engineering and Management, DTU, Denmark.
4. Büscher, M., Agger E., M., Kristensen, J. F., Mogenssen, P. (2004) *Ways of grounding imagination...* Proceedings of the eighth conference on Participatory Design – PDC2004, pp. 193-203, Toronto, Canada.
5. Capjon, J. (2005) ‘*Engaged Collaborative Ideation supported through Material Catalysation*’. Nordes 2005, ‘In the Making’, Denmark.
6. Carroll, J. (1995) *Scenario-Based Design: Envisioning Work and Technology in System Development*. NY: Wiley.
7. Ehn, P. (1988) *Work-oriented design of computer artifacts*. ISBN: 9122012311. Arbetslivscentrum, Sweden.
8. Halse, J. (2008) *Design Anthropology: Borderland Experiments with Participation, Performance and Situated Intervention*. PhD dissertation. IT University of Copenhagen, Denmark.
9. Kyng, M. & Greenbaum, J. (Ed.) (1991) *Design at Work*. Lawrence Erlbaum Associates, Inc., Mahwah, NJ.
10. Mattelmäki, T. (2006). *Design Probes*. PhD dissertation. University of Arts and Design Helsinki. Finland.
11. Sanders, B.-N. & Stappers, P. J. (2008) *Co-creation and the new landscapes of design*. In CoDesign, Volume X - March 2008, p. x-x. Taylor & Francis.
12. Star, S. (1989) ‘*The structure of ill-structured solutions: boundary objects and heterogeneous distributed problem solving*’. Distributed Artificial Intelligence (Vol. 2), p. 37 – 54, Morgan Kaufmann Publishers Inc., USA.
13. Von Hippel, E. (2005) *Democratizing Innovation*. MIT Press: Cambridge.
14. <http://chokobar.wordpress.com/>