What triggers us?! A close look at socio-material situations of co-designing services

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Abstract

Relations between Service Design and Participatory Design have been established. Yet, on the topic of how, in the situation, in the conversation, to stage and establish fruitful co-designing practices, a closer relationship can still be established - to further support practices of co-designing for complex service futures. Based on various participatory and socio-material theoretical perspectives including my previous co-design research, this paper goes beyond focusing on tools for co-creation, and rather looks into various 'triggers' of participation in the co-design situation. Through analysis of some conversations around mapping people, places and things in a 'service project landscape' in a teaching context, it is explored and discussed what seems to trigger 'us' – the various stakeholders – in such co-design situations. The paper particularly takes a close look at how diverse (tangible) materials, relations and questions in various ways can trigger participation.

KEYWORDS: participation, triggers, service co-design situations and conversations, service design, participatory design.

Introduction

Services are complex and services are networks of relations between people and people and things, as Ezio Manzini pinpoints in his introduction to the *Design for Services* book (Meroni & Sangiorgi, 2011). Thus, designing in a complex world (Thackara, 2005) is a premise of companies, service (co-)designers and others who engage in (co-)designing for future services. Additionally, it is also increasingly common for these different stakeholders to engage in *fuzzy-front-end* processes and collaborations (Sanders & Stappers, 2008), where the problems, issues, challenges to be designed for are quite open and continues to be complex. Or, as Kimbell suggests (2011), we can understand practices of designing for services as explorative and constructivist enquiries during which problems and meanings are constructed among different stakeholders. Still, it is in the situation, in the quality of the conversation, that the different people, working with such often-conflicting challenges, need

to find ways to collaboratively deal with it (Buur & Larsen, 2010). It is such situations of co-designing this paper takes a close look at.

Service Design (SD) is a multidisciplinary and in many ways a hands-on field, yet, as indicated in the call for this ServDes.14 conference, within its (research) community it is still increasingly recognized, that HOW collaborations between different stakeholders are staged in practice needs more attention: i.e. how to support researchers, different business partners, 'users', co-producers, distributors, NGO's, public organizations, etc. in processes of (co-) designing for innovative future services addressing complex societal and business challenges. In other words, it becomes essential how we practically stage and establish situations and conversations in multidisciplinary settings. Here the research fields of Participatory Design (PD) (Simonsen & Robertson, 2012) and Participatory Innovation (Buur & Matthews, 2008) fruitfully can intertwine with and contribute to SD.

Already a decade ago Sangiorgi & Clark (2004) suggested a PD approach to SD, and for example with the title 'Co-creating Services' of the ServDes.12 conference, a merge of PD and SD is in many ways already happening, as other recent SD authors also have addressed (e.g. Participle, 2008; Holmlid, 2009). Still, 'co-creation' is typically the phrase used in the SD community to capture the aim of supporting a desired open and 'innovative' multidisciplinary, collaborative atmosphere. Different from considering participation as an overall approach - so common in PD - for many service designers 'co-creation' seems to be considered as a 'tool' to choose to apply sometimes e.g. a 'co-creation workshops'. Stickdorn & Schneider (2010) for example describe co-creation as a "core aspect of the service design philosophy" and as a "principle that can be used in conjunction with many other tools in the service design toolbox" (p. 198). In their visual and very brief descriptions of how to practically organize open 'co-creation' sessions, they for example recommend that the materials used can be both 2D and 3D for participants to freely express ideas, but they do not go much further into the situation than that.

From a more hands-on angle, within the field of SD, many collections ('toolboxes') of ways of working (often called 'tools') are available, for example to work with complex relations and networks (e.g. in Stickdorn & Schneider, 2010; Meroni & Sangiorgi, 2011; www.servicedesigntools.org). Partly related to architecture, in my experience, a very important practice in SD to navigate service complexities, is working with various ways of 'mapping' – e.g. service blueprints, extended journeys, stakeholder maps, flows of breakdown scenarios, service ecologies (e.g. Moggridge, 2007:414; Stickdorn & Schneider, 2010: 150, 176, 210). Many of these common hands-on ways of designing for services are drawing together a mixture of people, things, environments, activities and processes, and they have also proved to work well in participatory settings. However, despite the core focus on 'touch' points within the SD field, with the often schematic structures and largely paper-based materials, I will discuss how some conversations about services do not arise. Thus, as a possible hands-on addition, for example in the fuzzy-front-end of processes when still formulating and identifying the main challenges, focuses as well as during the initial ideation, this paper takes a close look at participatory situations and conversations engaging tangible three-dimensional materials, as a part of what I elsewhere have described as 'Project landscapes' (e.g. see Eriksen, 2012; Halse et al., 2010).

In particular the discussions will relate to detailed co-design situations from a service design teaching course themed *Sustainable transportation services*. This was the topic of an intense 5-week service design course with interaction design BA students at K3/Malmö University in Sweden in 2009. Working in four parallel teams the students addressed four angles of their choice on this topic and co-designed four service concept proposals: 1. Returning stolen

bikes service; 2. Bus-driver competence-courses to enhance experiences of using public transportation; 3. Sharing alternative means of transportation and leisure equipment service; 4. Coordinated public travelling system service. Co-designing several versions of a three-dimensional 'service project landscape' worked as a red thread throughout the course, formatting conversations and negotiations about core touchpoints and the complex systems and networks of the single service concepts and of fruitful overlaps between their different related service proposals. Related course structures and topics have been taught once a year since then, with me as a co-teacher and supervisor, and successfully in close collaboration with relevant local municipal stakeholders.

Data about the discussed co-design situations was captured both as video and still images and through the actual materializations, core documents, presentations, research and supervision-notes, used and made during the course. I am aware that this Exemplar does not involve many multidisciplinary stakeholders, and in that way does not capture a fully complex project set-up. Also, I am aware that the teaching setting of the course was very open yet it adopted a constrained frame for the situations discussed. Alongside five other Exemplars, this teaching Exemplar has already been thoroughly illustrated, analysed and discussed in Eriksen (2012), yet without this paper focus on 'triggers'. (The term 'Exemplar' is deliberately chosen rather than 'case' e.g. see Brandt et al., 2011). However, for this paper this Exemplar was chosen to provide detailed fragments from actual practice for the purpose to support a more general discussion about 'triggers' in co-design situations and conversations about services.

A socio-material analytic approach (to case studies)

This paper is partly inspired by Blomkvist, Holmlid & Segelström (2010) arguing for a move "from justifying service design to research on service design" (Blomkvist et al. 2010, p. 309). They see two main directions of SD research, and here I focus on the second: They argue, to support more academic rigor in SD research, the many existing (and new) SD case studies must be further elaborated in order to contribute new knowledge to the field (ibid, p. 315). The *Design for services* book (Meroni & Sangiorgi, 2011) with seventeen clustered and elaborated case studies; and the *Designing for Services* research project led by Kimbell (2011) with three compared and elaborated cases, are two recent publications doing this. Quite systematically and intertwined with an extensive study about different views of design and service in (service) design and service management theories, in her discussion Kimbell does describe some interaction details. For example, in one of the case she details how a sketch visualizing the core challenge becomes a *boundary objects* (Star, 1989) between service designers and a company manager or how a question focusing on the user's view was repeated to understand current practices. However, in her case summaries she often remains at a level of details, not really allowing the reader to get much sense of what triggered the next move in the specific co-design situation.

Methodologically, with a design background, my practice-based, action co-design research combines various approaches (see Eriksen, 2012). Partly inspired by anthropological accounts and *Actor-Network Theory (ANT)* (Latour, 2005); the socio-material analytic approach applied also in this paper is based on a thorough 'designerly' revisiting, tracing and 'drawing together' of the various data from the detailed experienced co-design situations in the Exemplar. Generally with focuses on materiality and (roles of) non-humans in co-design processes, and additionally in this paper, with the perspective of 'triggers', the narrative

accounts of what actually happened are intended to make the discussion concrete. Further, intertwining with the various chosen theoretical perspectives the main purpose is to trace some more general characteristics of 'triggers' in (service) co-design situations. Additionally, in a SD research context, this close socio-material look and analysis is also intended to suggest a way of understanding situated details of interaction in 'service co-designing' or 'co-designing for services' to almost paraphrase Kimbell (2011) and Meroni & Sangiorgi's (2011) work.

Underlying participatory and socio-material perspectives

Now, let me uncover the core underlying perspectives behind the arguments of this paper. A basic principle and value when working with a Participatory Design (PD) approach, is establishing situations of *mutual learning*; aims of openness for agonistic views are therefore a core common principle throughout the process and when staging situated participatory conversations (Simonsen & Robertsson, 2012; Buur & Larsen, 2010). Another commonly recognized view within PD is that situated practice is always *socio-technical* and *socio-material* (e.g. Suchman, 2007; Björgvinsson, 2007); in many ways in line with Kimbell's understanding of designing for services, where the designed is seen as "relational and temporal", "socio-material configurations or systems" and that "value is created in practice"(2011, p. 41, 48, 49). Furthermore, I have previously also argued the need to understand and analyse (service) co-designing practices as such. To practically establish openness for participation many also engage with (e.g. physical) materials as *things-to-think-with* (Brandt, 2001) and acknowledge the importance of *boundary objects* (Star, 1989) as shared reference-points in the collaboration among diverse stakeholders. Also, building upon Schön's understandings of reflective practitioners (1983), that the *back talk of the material of the (co)design situation becomes a part of the reflective conversation*. Within structures viewed as performative event-driven processes, more practically, hands-on in collaboration with many others, I have many years of experience of staging and formatting quite open ways for engaging diverse stakeholders in co-designing (e.g. Halse et al. 2010; Eriksen & Vaajakallio, 2013).

Finally, based on these PD experiences, principles and views, this paper also largely builds upon underlying assumptions and arguments in my doctoral research on *Material Matters in Co-designing* (Eriksen, 2012). There I e.g. show and argue how *materials are participating* and having *delegated roles* in co-design situations not only as a part of a tool or method for collaboration, but rather, (as people) they are participating and intertwining in the continually transformative practices and networks of co-designing (projects). This assumption and argument largely builds upon *Actor-Network-Theory* (Latour, 2005) and *communities-of-practice* perspectives (Wenger, 1998) that suggest how participation and relations (of human and non-human actors) cannot be separated. I will return to these later. Now let me get into details of 'triggers' for participation.

Diverse materials as triggers

Different materials, as much as people, are often 'invited' to participate into collaborative settings such as workshops, to explore the content of current project topics and challenges. Event organizers often bring these materials along, and of course also depending on how

they are introduced and how their situated use is formatted, they can (or can not) open up for different focuses, conflicts and conversations (e.g. Buur & Larsen, 2010).

On the first day of the Sustainable transportation services course, co-designing the 'Service project landscape ' started from a white foamboard (format) on one table in the middle of the room (Figure 1) and a 'buffet of materials' on another table. The 'buffet' included different kinds of fabrics, paper, buttons, pipe-cleaners, etc. as well as brochures, magazines and newspapers more or less related to the topic (Figure 1 - middle). With the one restriction not to write on post-it notes, as teachers we gave the students an open invitation to modify and add material to the board capturing what they found important in relation to the course topic.

Figure 1: (left): Some start around the foamboard base of the 'service project landscape'; (middle): Others start by making with selections from the 'buffet of materials'; (right): The materializing landscape triggers negotiations of meanings and relations of the added content material.

Participant responses varied widely. Some went directly to the buffet, grabbed some materials and started making something, others gathered around the still-white foamboard base format with a bag of small shiny rectangular buttons picked from the buffet and started their dialogue around organizing them in a corner of the board, while yet others started by flipping through and tearing out images and words from the available magazines and newspapers. Different tangible materials appealed to different people, personally they were comfortable with and got triggered by different materials, but even though they were mostly making in parallel, there was lots of talking (Figure 1 – left & middle). Conversations about what one was doing, what it was supposed to mean, how it connected with what others were doing, etc., and as soon as it was placed in the landscape further discussions of relations to what was there already emerged.

More generally, one perspective for understanding why this happens, is the learning theory of *communities-of-practice* developed by Lave and Wenger, where organizations are understood as different communities with their established ways of 'participation' and what they call 'reification' processes (Wenger, 1998). They basically argue, that processes of reification (materialization, making into a thing) are intertwining with participation. However, when people from different *communities-of-practice* get together, so common in multidisciplinary (service) co-designing processes, what sometimes causes conflicts is that people are not comfortable with the processes of doing and making commonly applied in another community. There will always be different interests and preferred practices among different stakeholders, but as Eva Brandt (2001) and I (Eriksen, 2012) previously have shown and argued, to make such conflicts fruitful, establishing a (shared) temporary project-community for example through collaborative exploring and making, has proved constructive (see also

Halse et al, 2010). In the Sustainable Transportation Exemplar, all the students could be viewed as coming from the same community (as interaction design students), but they were all new to the service design perspectives and approaches. Also, as the story above shows, different materials did appeal to them individually, and the broad repertoire in the buffet opened up for many triggers to start making and to start different conversations about what they were beginning to work with, which led to the creation of four thematic teams.

Relations as triggers

As many SD practitioners and researchers argue, services are composed of complex network of people, places, objects, activities and processes (e.g. Stickdorn & Schneider, 2010; Meroni & Sangiorgi, 2011). As described above, the various ways of mapping that are widely explored in many service design processes, largely aim at navigating complexities of current and/or future services. Mapping can open up for exploring, uncovering and negotiating 'gaps' in current relations and links that could establish new relations – for example between different service providers or across different departmental boarders within municipalities.

In the Sustainable transportation services course, after the first service project landscape session described above, the students undertook 2 ½ weeks of quite conventional field observations, interviews with relevant stakeholders, sketched journeys of existing practices, presentations of two-three possible service concepts and quick roleplaying with simple mock-ups of possible core touchpoints. Then we staged for all the teams to get together again around their shared landscape. It had been in the corner of the classroom, and when it was 'brought to life again' – or it was 'de-frosted' as Björgvinsson (2007) suggests to phrase such processes - much of the content and especially their positions from the first day/version did not make much sense now.

Figure 2 (left): Again conversations start in different ways; (left-middle): Some clean up and re-organize the shared service landscape; (middle-right): The stolen-bike-service team e.g. negotiates functionalities and relations of the core spaces of their service;(right): With the landscape discussions of relations and overlaps between their different proposed sustainable transportation services arise – in the front the 'station' and equipment by the team working with a lending-service of alternative means of transport and in the back the stole-bike service spaces.

Again, the students were working with different materials, some started by cleaning up in the current landscape, while others were making new miniature things (touchpoints) and identifying places matching with their currently proposed service concepts (Figure 2 – left & left-middle). To start with, the four teams were now mostly working in parallel, however, when their different new parts entered the shared landscape, it became clearer and triggered conversations within and between the teams about overlaps and possible relations between different core parts of their service concepts (Figure 2 – middle-right & right). The team working with lending out alternative means of transportation for example spend most of the time by the buffet making examples of Here-you-can-borrow-everything 'stations' (using disposable cup, balloon, sticker) as well as examples of what they would imagine to lend out

– for example bikes and blankets. Yet, when they entered the landscape they were negotiating their positions 'in town' with some from the other teams, conversations about the functionalities of the stations also arised. By relating to the stolen-bike-return-and-repair service, it triggered conversations of how all the things they imagined would be lent out, would be repaired and transported around town between the lending stations. They could use the repair workshop and the trucks from the bike-service, but to avoid having to move everything to one place, the 'manned' stations could probably also work as places for fixing stuff – and maybe even also for registering a stolen bike.

Further, towards the end of making the second version, as a teacher I deliberately asked them to individually add specific notes with names of backstage actors that they would further keep in mind in their continuous processes. This partly relates to the service design practice of working with 'stakeholder maps' (e.g. Stickdorn & Schneider, 2010, p. 150-153). Our (pedagogical) motives for doing it this way, in this already complex 'mapping' were twofold. First, not to isolate and only focus on people, but to continually keep the focus on the relations between people, places, things, activities and processes in the overlapping service networks. Second, making within and across the teams enabled possibilities of *mutual learning* by uncovering sustainable relations and overlaps of resources between their otherwise separate services and processes.

More generally, as briefly mentioned above, the recognition of networks as both human and non-human actors (things, laws, places, events, etc.) is a core concept in *Actor-Network Theory* (ANT) (e.g. Latour, 2005); in many ways practically overlapping with how these students and service designers broadly pay close attention to the various human, tangible, technical, touchpoints (and in-betweens) of a service. ANT is one theoretical perspective and approach for understanding the importance of relational mappings, still Bruno Latour argues, applying ANT is not simply to identify actor-networks of humans and non-humans. Rather, he claims, the importance is to 'draw things together' related to 'matters of concern' (e.g. sustainable transportation challenges of the city) and especially to trace the 'mediators', the actors making others act often in unexpected ways in such complex networks. In *Reassembling the Social* Latour (2005) further distinguishes between the concepts of these *mediators/actors* making us act and the, to him less relevant, so-called *intermediaries* not causing any transformations (ibid). With this argument Latour does not particularly relate to design practices, but tracing *mediators* that makes others act is fruitful to further understand what happens and triggers participants in situations of co-designing for service.

As described above, it is not fully clear which of the content that came to work as *mediators* in the continuous four parallel processes of further detailing sustainable transportation related service concepts. Yet, something did happen in the situations of collaboratively reworking the second version of the sustainable transportation service landscape. For example, in a very hands-on manner, the relations between and functionalities over time of both the (manned and un-manned) lending-stations and the bike-repair-trucks did mediate and trigger the participants to further develop their respective service concepts and identify overlaps that eventually would make both their service proposals more sustainable over time.

More broadly, returning also to the diverse materials as triggers, for example the white foamboard with the *delegated role* as the base *format* of the service project landscape, together with other guiding instructions and the whole scheduling and staging of intertwining this collaborative process throughout the course, also became a *mediator*. Combined with the broad ideas of SD, practically it was mediating the students to act and collaborate in more holistic ways than previously in their training as interaction designers.

Questions as triggers

Lastly, (often verbal) questions are very common in conversations with others, and they sometimes work too as *mediators* triggering people to (re)act. Responses to questions – often also verbal - can be many of course depending on the specific situation and situated relations. It happened in the situations of collaboratively making both the first and second versions of the service landscape, that several of the questions we posed as teachers triggered the participating students to respond in various ways.

As interaction design BA students, the participants here were very used to focusing on the (frontstage) user experiences of interactions, for example, when deliberately asking them to further consider the backstage of their service proposals, after a couple of repetitions, it made them act. The team working with the stolen-repair-bike-service for example gathered around their corner of the board as the question triggered them to discuss by referring to the different parts they had made and ended up slightly rearrange the spatial relations between their (frontstage) 'office' and all the other (backstage) support needed to provide the service such as the 'storage space', the 'repair workshop', trucks, and later the P-guards walking around the streets scanning and spotting stolen bikes were added too. The team working on developing competence-training courses for bus-drivers, in a sense focused their whole service backstage, with the expectation to then enhance the driver's capabilities to assist in creating a more positive experience for users of the public transportation. Still, the question triggered them to add yet a bus – the green regional bus – to remind themselves and the rest of us about the importance of relating support-services like they were proposing both to city and regional bus services, to different actors in the transportation network.

More generally, again with the broad view of materiality applied in my research, questions can too be considered as a 'material of the (co-)design situation', to paraphrase Donald Schön (1983). As a part of their work on *innovative learning spaces* and *innovation pedagogic*, Aakjær and Darsø (2014) too empathize how carefully formulated open questions can be an important and mediating format both in the preparations and running of meetings and when wishing to change conversations. The questions we posed as teachers triggered new conversations, and rather than only answering verbally, the complex but quite open layout of the landscape (e.g. rather than a schematic grid) easily allowed the participating students to collaboratively see, negotiate and tangibly make and re-arrange their responses.

What triggers us - Discussion

Through this socio-material analysis of taking a close look at some co-design situations with (parts of) the 'service project landscape' as a *mediating boundary object*, it is clear that collaborating in such ways triggers lots of different conversations about services. In other words, many of the materializations and identified overlaps captured negotiated meaning in the situated socio-material interactions (Heinemann et al., 2009). More broadly, as partly shown, and as seen in many other co-design situations too aimed at *mutual learning*, working with questions and diverse tangible (*content* and *format*) materials can assist in inviting all participants to contribute and share their knowledge, independently of organizational status and power asymmetries (e.g. Simonsen & Robertsson, 2012; Buur & Larsen, 2010).

Practically, throughout many of the conversations, intertwining with the making, much of the concerned practices could be described as collaboratively *naming*. Donald Schön's widely referred work on reflective practitioners, particularly from in his studies of architectural

practice, has recognized that in the *reflective conversations with the materials of the (co-)design situation* a core characteristic of design practice involves *naming* as a part of *framing* and *reframing* the problems/issues to attend to (Schön, 1983). The many ways of mapping used in architectural as well as service design practices too intertwine (collaboratively) *naming* different parts or clusters of the mapping. But names only as words e.g. on post-it notes, can too be associated with so many meanings, depending on the *communities-of-practice* of the participating stakeholders. Thus, exploring services through making, for example as exemplified above, sometimes happens in silence, but typically not for long. At least in those situations, often, the making was exactly intertwining with talking and *naming* as a part of negotiating the specific meanings of the different materialized parts entering the project landscape. This triggered the participants into different conversations about services. But you might still ask: what are the purposes of triggers?

In short, combining various *formats* and triggers, as the ones discussed in this paper, in situations aimed at co-designing for services, can enable e.g.: evening out hierarchical imbalances between participants and allowing people to effortlessly contribute with their different perspectives; identifying and formulating core challenges which the service being designed for actually should address; deepening the understanding of the complex relations of people, places and things intertwined in a service or network of services; developing (new) ideas for (frontstage and backstage) touchpoints – not for isolated interactions but for enabling continual relations / thinking beyond service moments/ interactions and thus further exploring (parts of) what is needed to make a service sustainable over time.

As emphasized in the beginning of this paper the basic purpose of establishing triggers for participation in processes of co-designing for services, is largely to enable situations of *mutual learning*, so much at the core of a PD approach. This, I will argue, also should be at the core of any co-designing for service process – also to support ownership of the future solutions. In the situation, some are triggered by words, some by images, some by pipe cleaners, some by uncovering relations, yet others by provoking questions; therefore when working in multidisciplinary projects with stakeholders from various *communities-of-practice*, establishing triggers for different people comfortable with different (participation-reification) practices is key here. Providing different triggers to invite for engaging in co-designing enables an indirect means to commence talking about complex challenges and possible future services, which may be difficult to approach head on.

To summarize, as initially mentioned, the fruitfulness of intertwining Service Design and Participatory Design have increasingly been recognized and established during the last decade. Still, in the future of co-designing for services, I encourage an even closer relationship of theoretical foundations, basic principles, approaches and practical ways of working. In my future practice-based co-design research, I aim to further trigger and engage in such conversations and relations.

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