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Service design in the later project phases: Exploring the service design handover and introducing a service design roadmap

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Abstract

Within practice and in academia, service design has placed a great focus on the early stages of the innovation process, while there has been limited focus on the later phases. This paper examines the later phases, focusing upon the handover from service design consultants, before leaving a project. This is identified as a critical aspect of the later phases and this paper critically examines what a service design handover is, and might be. Theoretical perspectives are combined with interviews of thirteen respondents on producing and receiving handovers, in the context of Norwegian service development projects in public and healthcare sectors. Findings indicate need for an improvement in, and a harmonization of, service design handovers; this is embodied in what I call a *service design roadmap*. Such roadmaps might support development teams receiving service design handovers, enabling them to better make use of the material during their later process phases.

KEYWORDS: service design, the forgotten back-end, handover, service design roadmap, user insight drift

The forgotten back-end and the service design handover

There are multiple challenges to design for in healthcare, such as an ageing population and an increase in people living with chronic diseases, whilst the healthcare system is expected to deliver more with fewer resources (Engström, 2014, p. 2). Within this landscape, I explore the notion of patient and user involvement, described by Kujala (2003, p. 1) as “a general term describing direct contact with users and covering many approaches.” The Norwegian Ministry of Health and Care Services (HelseOmsorg21, 2014, p. 32) has expressed the view that:

User involvement can contribute to increased accuracy in the design and implementation of (...) service offerings, but users are currently insufficiently involved in the design of healthcare services.

Several scholars have also expressed a concern about the gap between how user and patient involvement is described in policy aims, and how it is interpreted in practice, in order for the involvement to be more than symbolic (see Engström, 2014, p. 2; Morrison & Dearden, 2013, p. 127). During the last few years, the field of service design has emerged in “new and influential roles” within healthcare services (Jones, 2013, p. xvi). Drawing on methods from various disciplines, service designers aim to systematically involve and understand users when developing services (Stickdorn & Schneider, 2011, p. 128). Hence, the discipline can be seen as a relevant approach to the issue of user involvement in practice. Meanwhile, though scholars such as Sanders and Stappers suggest that user involvement should happen “...throughout the design process at all key moments of decision” (2008, p. 5) in order to create successful services which satisfy user needs (Yu & Sangiorgi, 2014, p. 197), the research of user involvement in the later phases is limited (Yu & Sangiorgi, 2014, p. 201).

In other words, many scholars have studied user involvement in the early process phases, while the notion of user involvement in the later phases has received less attention. This coincides with a general tendency in service design research, where the early phases of service design development have been thoroughly explored by scholars (e.g. Alam, 2006; Bruce & Cooper, 2000; Clatworthy; Koen et al., 2002), while the focus on the later phases has been limited (Martins, 2016; Overkamp & Holmlid, 2017). In a previous publication, I explore the later phases, hereafter referred to as the *forgotten back-end* (Almqvist, 2017). The initial study identified the *handover* from service design consultants to the client as one critical point in the later phases (Almqvist, 2017). Moreover, the initial study introduced the notion of *user insight drift*, suggesting that a project might drift away from initially identified user needs during the later process phases (Almqvist, 2017, p. 5).

My aim now is to contribute to the research of the forgotten back-end, through the exploration of what a service design handover is, as seen from the perspective of service design consultants and the perspective of receiving clients. The focus of this research is on the handover delivered from service design consultants before leaving the development team, when a service concept has been developed. In other words, the focus lies on instances where consultants are involved in projects during longer periods of time. The main contribution is the suggested concept of *service design roadmaps*, a concept I argue may support clients’ work during the later development phases, when the service design consultants have left the project.

The presented study is part of my doctoral work, where I explore the later service design process phases, in the context of service development in Norwegian healthcare. The work explores how service design handovers might support development teams to keep a user-centered focus throughout a service development process. The work is supported by the Norwegian Research Council and is part of Centre for Connected Care (C3).

The structure of this paper is as follows: a brief background concerning the service design handover is given. The interview analysis approach of *meaning condensation* is made clear, before the result categories of this analysis are presented. After discussing the findings, with an emphasis on the service design roadmap, further research directions are suggested.

Background

In the public and healthcare sectors, service design has emerged as a relevant user-centered approach for supporting service development (e.g. Sundby & Hansen, 2017). Meanwhile, service designers have been criticized for a lack of implementation competence, which might lead to concepts not leaving the drawing table (Mulgan, 2014, p. 4). Furthermore, a need for more research into process support for service design implementation has been indicated by

several scholars (Almqvist, 2017; Martins, 2016; Overkamp & Holmlid, 2016, 2017; Yu & Sangiorgi, 2014). By exploring the service design handover, this paper contributes to research into the later development phases. The aim is also to contribute both to service designers working on projects in public and healthcare service development, and to clients, which in this work are civil servants running projects where service design consultants are involved.

In this section the service design handover is introduced, and aspects that might influence a service design handover are discussed. Lastly, the works of two relevant service design scholars are introduced, and the contribution of my research is discussed.

The service design handover

When involving service design consultants in development processes, a need for communicating and transferring generated information, insights and results between consultants and the rest of the team often occur, no matter how successful the collaboration is. In an earlier study I found that service design consultants are mostly involved in the early development process stages, and few have experience of participating in the later stages (Almqvist, 2017, p. 5). This makes the handover an important output of a design process, considering that this material can function as process support after the consultants have left. There are few descriptions focusing specifically on service design handovers, though scholars have thoroughly described an abundance of service design methods and tools, which can generate handover material (e.g. Sanders & Stappers, 2013; Stickdorn & Schneider, 2011; Tassi, 2009). The service design handover, hereafter mainly referred to as handover, is here understood as something continuously taking place throughout the process, both as *activities* and *deliverables*.

Activities. Presentations, meetings and informal discussions between consultants and the development team, are typical handover activities, where information, insights and results are both generated and transferred. Due to the nature of the gathered research data, this paper focuses on handover deliverables.

Deliverables. In contrast to for instance product design, where most design material is tangible, the service design discipline deals with much more intangible design material. The challenge of conveying the intangible aspects of services, influence the handover deliverables. One of the most prominent approaches to communicate intangible aspects of services is visualization, which is used to “depict the service being (re-)designed” (Segelström & Holmlid, 2011, p. 2). Among several service design visualization techniques appraised by Segelström and Holmlid, *customer journeys* (Parker & Heapy, 2006), also referred to as user journeys, and *storyboards* (see Quesenberry & Brooks, 2010, p. 256) are considered highly relevant for conveying service concepts. A third well-known technique is *service blueprints* (Bitner, Ostrom, & Morgan, 2008; Shostack, 1982). All three are distinctive examples of service design handover deliverables (see figure 1).

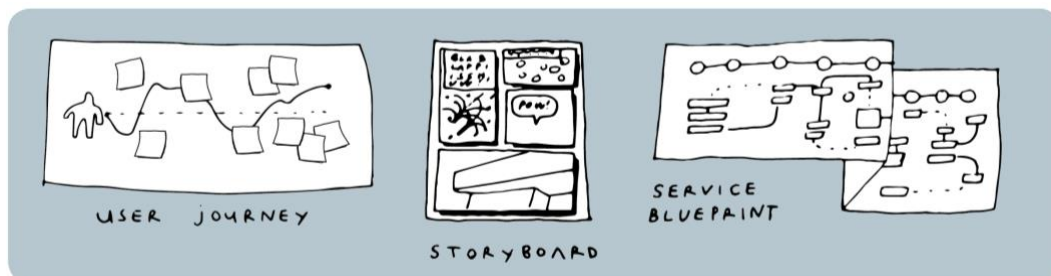


Figure 1. Three service design handover deliverables

Service design consultants, just as consultants from any field, can be hired during different phases of a process. The phases in which service design consultants are involved, will inform the content and format of the handover deliverables. Most handover deliverables are either a:

- condensed summary of the project up until a specific date, hereafter referred to as *project documentation*, or;
- specification for a future solution, hereafter referred to as *service concept* (see Stickdorn & Schneider, 2011, p. 134).

These types of handover deliverables can either be delivered during a process, or as a final handover deliverable, before leaving a project. The physical format of such handover deliverables is most typically a written report or a digital presentation, and often contains one or more visualizations (see figure 1).

Two scholars studying the later phases

This paper presents findings from qualitative interviews, which are seen in light of the research by Eun Yu (2014) and Tim Overkamp (2017).

Drawing on Johnson and colleagues (2000, p. 18) Yu divides service development into how services are designed, and how services are implemented (2014, p. 197). Yu argues that if these two stages are disconnected, it might lead to the “generation of service concepts that cannot be actualized in current service delivery system[s]” (2014, p. 201) and argues that research on the connection between these phases is needed in order to achieve more successful implementation (2014, p. 202).

Drawing on Kindström and Kowalkowski (2009), Overkamp reasons that implementation ought to be “on the agenda before the project arrives at the delivery and sales stages” (2017, p. 4411). Overkamp introduces the notion of *implementation during design*, arguing that implementation as a concept needs to be present continuously during the design process, and that more research is needed on this topic (2017, p. 4418).

This paper contributes to an understanding of the transition from *designing* to *implementation* described by Yu (2014). More specifically, by exploring the handover from service design consultants to a client, before leaving a project. The paper also contributes to an exploration of how implementation can be considered *during* a design process, by suggesting the concept of service design roadmapping as a means to support clients in making use of handover material after the service design consultants have left.

Method

In order to explore the area of interest, data was gathered from interviews and observation. Thirteen qualitative semi-structured interviews (Kvale, 1996) have been conducted, with four civil servants, four service designers working in service design agencies, three service designers working within public services and two consultants from other disciplines than service design. The variety of respondents was deliberately chosen, to gain insights about the topic from multiple perspectives. The chosen respondents all have experience from service design projects in the Norwegian public sector and most have experience from service design projects in healthcare. All are situated in Norway, and all have experience either of producing or receiving a service design handover. Their background and experience are as described in figure 2.

1. Senior freelance consultant (without design background) Receiver of service design handovers;	8. Senior service designer (working at a hospital in the role of service designer) Producer of and receiver service design handovers;
2. Senior management consultant (without design background) Receiver of service design handovers, and has collaborated with service designers in projects;	9. Civil servant (working with service design in public services on a strategic level) Receiver of service design handovers and developer of guidelines for service design handovers in public service development;
3. Civil servant trained as service designer (working with service design in public services on a strategic level) Receiver of service design handover and developer of guidelines for service design handovers in public service development;	10. Civil servant trained as service designer (working with service design in public services on a strategic level) Receiver of service design handovers and developer of guidelines for service design handovers in public service development;
4. Senior service design consultant (with experience from working as a civil servant) Producer and receiver of service design handovers;	11. Senior service design consultant Producer of service design handovers;
5. Civil servant (working with public healthcare services) Receiver of service design handovers;	12. Senior service design consultant Producer of service design handovers;
6. Healthcare employee (working at a hospital) Receiver of service design handovers;	13. Civil servant working with public healthcare services Receiver of service design handovers.
7. Senior service design consultant Producer of service design handovers;	

Figure 2. Interview respondents

The interviews lasted between 20–90 minutes and were conducted from February–August 2017. All interviews were audio recorded and were later transcribed in verbatim. The interviews were analyzed according to the method developed by Amadeo Giorgi in the 1970's (e.g. 2012), which was further developed by Steinar Kvale, and referred to as *meaning condensation* (see 1996, p. 192). The main themes emerging from this analysis were further explored in the light of literature. All transcriptions were read with three main questions in mind:

- In which phases are service design consultants involved during service development?
- What is a service design handover?
- How are service design handovers produced, received and taken into use?

Meaning units were articulated using the systematic approach as described by Kvale (1996, p. 194). The meaning units were then gathered into a matrix consisting of thirteen interviews and six themes. The themes were as follows:

- The service design handover as continuous throughout a project
- Project documentation
- Service concepts
- Service design roadmap
- User involvement
- The context of public and healthcare service development in Norway

The themes differ from the initial main questions, since they were refined during analysis. This relates to Kvale's reasoning, that analysis is not conducted as an isolated stage, but rather continuously through an interview inquiry (1996, p. 205). Correspondences and variations were examined across the material, studying experiences and conceptions across individuals. This step had no interest in the individual and her answers but the focus was on the whole material and aimed to depict the variations within meaning units.

Data has also been collected through participant and non-participant observation (Cooper, Lewis, & Urquhart, 2004) in five service development projects within Norwegian healthcare. My role in the projects varied from participating and non-participating service designer, to

participating and non-participating researcher. Furthermore, projects where external service design consultants are hired on a project basis are in focus, considering that this is of the most common modes of involving service designers in public or healthcare service development today. These two factors also influenced the choice of interview respondents. In this paper, a few observations are used to illustrate the results of the analyzed interviews.

This paper presents some central aspects of the study. Other aspects, such as user involvement and the context of service development within Norwegian healthcare, will be described further in later publications.

Findings

The main focus is on exploring what a service design handover is and might be. This section presents the results of the meaning condensation analysis (Kvale, 1996) of the interviews. The results are supplemented by a few examples from observations.

A service design handover may be perceived as continuous throughout a project, consisting of both various *activities* and *deliverables*. Two interviewed consultants expressed the view that ideally handovers should happen continuously, as long as the consultants are involved. As phrased by one of the consultants:

The handovers I find most ideal (...) is when we've been working so close to the customer, that there's hardly any handover [to deliver before we leave]. The [final handover] is just a formality, since knowledge transfer has taken place continuously during the project.

The notion of the handover as redundant in successful projects, where collaboration is continuous and well-functioning, is shared among some of the interviewed consultants, and resonates with data from my previous study of the forgotten back-end (Almqvist, 2017, p. 5). Though the notion of the handover as redundant might seem bold, one important quality of this notion is that one cannot view a handover as an isolated entity.

The interviewees expressed few opinions regarding handover activities, but indicated several challenges and opportunities relating to the handover deliverables that service designers produce.

The following section present three central aspects of handover deliverables, each shedding light on different qualities of the service design handover. The first category is *project documentation*; the second *service concepts*; and the third *service design roadmap*. The last category indicates a concept in need of further research.

1. Project documentation

Both interviewees with experience of producing or receiving service design handovers, expressed several arguments for why project documentation is important, and described challenges relating to lacking documentation. For example, one of the interviewed in-house service designers had experienced that a project she wanted to learn from, but had not participated in, had hardly been documented at all:

In that project the handover was verbal; it was a presentation. In other words, the knowledge [generated in the project] is only present in the people who have been part of the process.

A few other interviewees also mentioned similar experiences of lacking project documentation, where the lack of documentation made it hard to:

- Explain to others what had been done in a project
- Learn from the project experience if one had not participated in the project
- Build on earlier project phases, especially in cases where a longer period of time had passed between pre-project and the main project

Benefits of project documentation mentioned by the interviewees include the use of such material to successfully embed a project within the organization, and for diffusion of a project outside of the organization.

2. Service concepts

While project documentation captures what has been done during a process, *service concepts* aim to depict the overarching goal and desired service that the service development process is aiming for. The importance of service concepts was expressed by nearly all of the interviewees, and this deliverable was described as highly relevant for dealing with the challenges mentioned in the previous section.

Most interviewees who had received service design deliverables, had very few remarks concerning how the deliverable content or format could be improved. Hence, there are few indications of a need to focus on the deliverables per se. However, most had experienced challenges related to *receiving* the deliverables. This challenge was mentioned by most interviewees, and can be read in the statement by an in-house service designer:

I think there is something challenging about the process, maybe not the documentation, but perhaps one should have a deliverable on how to use this information afterwards if you don't have any service designers onwards.

In other words, no matter how relevant service design concepts and deliverables might be from the consultant's point of view, the receiving stakeholders need appropriate support to know how to take the deliverables into practical use. This leads to the following third category.

3. Service design roadmap

The third category service design roadmapping and service design roadmaps, relate to a gap I have identified in service design research so far. Namely, how those receiving service design handover deliverables can make use of the material in their further work. The term roadmapping describes a visual strategic planning process (Phaal & Muller, 2009), while roadmaps are the output of such planning processes (Garcia & Bray, 1997, p. 31). The roadmapping approach has long traditions within technology and product development, where it is commonly referred to as Technology roadmapping or TRM (see Hussain, Tapinos, & Knight, 2017). According to Phaal and Muller, the three essential questions that a technology roadmap ought to address are: Where are we now? Where do we want to go? and How can we get there? (2009, p. 42).

Though roadmapping and roadmaps are well established and described in other disciplines, this is so far not the case in service design. A brief search on Google and Google Scholar for "service design roadmap" and "service design roadmapping" presents no results describing a service design roadmap or a service design roadmapping approach. A few studies mention roadmaps, such as Farmer and colleagues describing the development of a "summary *map*" to assist managers with participation during a project (2017). However, I find no studies related to my focus on service design roadmaps for supporting development teams to make use of service design material, after the service design consultants have left.

In my interview material, only two interviewees use the term *roadmap*. Those two respondents are service design consultants, describing how to prepare the development team for the phase after the consultants have left. Meanwhile, almost all respondents expressed that there is a need for “recommendations, activities, instructions, guidelines or plans” when receiving service design handovers. This relates to the need for being able to use the material and know where to start, when working towards implementing a service and reaching for a visionary goal. This need was expressed by both interviewees with experience of receiving service design handover deliverables, hereafter referred to as *receivers*, and interviewees with experience of producing service design handovers, hereafter referred to as *producers*.

I propose to further explore the correlation between the TRM approach and the interviewees’ perceptions of what is needed, which may result in a roadmapping approach specifically for service design. Furthermore, I argue that this concept might contribute to a better understanding of the later phases of service design development, which has not been much studied so far (Almqvist, 2017; Martins, 2016; Overkamp & Holmlid, 2017; Yu & Sangiorgi, 2014).

3.1 Receivers. Interviewees who had received service design handovers described various experiences that indicate a need for what I’m calling a service design roadmap. Many expressed the view that service designers have a tendency to deliver visionary concepts that are seldom supplemented by pragmatic recommendations for operationalization. However, some interviewees described handover deliverables as easy to take into use when the project was not very complex, few stakeholders were involved, and when the service concept was of an incremental, rather than visionary and innovative nature. On the other hand, some expressed the view that there was a need for more practical and systematical deliverables in complex projects with many stakeholders, and visionary service concepts.

The challenge of receiving deliverables without pragmatic ‘how to’ recommendations, was also the case in one of the projects I observed. The leader of this project, who had previously hired service design consultants, expressed the view that:

In retrospect, I think (...) [that the designers] should have delivered a much more concrete solution, which considered the economical resources available.

One consequence of this overarching and visionary service concept was that the development team had difficulties knowing where to start after having received the service concept deliverables. As phrased by the same project leader:

We didn’t have any tools to make even one little thing, since we didn’t have anything concrete.

Several interviewees shared similar experiences. A civil servant with service design background, described receiving a handover from a service design consultancy, not knowing how to use the material in her further process. She suggested that:

There haven’t been any [discussions on] what we are going to use this [material] for? There has been nothing like that.

The interviewees expressed many different challenges related to receiving service design handover deliverables. At the same time, they had experienced very few projects where expectations or requirements in regard to the handover had been explicitly formulated.

3.2 Producers. Several of the interviewed service design consultants argued that it is important to develop a plan for how receivers can make use of handover deliverables in their further process. A service design consultant explained:

Ultimately, 'how' we deliver things becomes quite important. We think, at least for now, that delivering a sort of roadmap, a plan, is more [important] than [saying] – Yes, here you have the concept, we got this result, it worked like that. – Rather, [we] try to use time to draw the road ahead.

Furthermore, the interviewees emphasized the importance of contextualizing the handover deliverables, as expressed by another service design consultant:

The people who are left when we leave, are the most important. (...) [We must] strengthen the plans [receivers] have in their continuous work, (...) our job is to provide [them with] the tools they need to get their plans done.

While the analyzed interview material indicates that producers express the importance of a planning the road ahead, the material also indicate that:

- Not many service design consultancies have defined approaches for developing plans for implementation;
- Not many service design handovers contain plans for implementation;
- Expertise and experiences regarding service design handovers and implementation plans are seldom shared among consultancies.

To sum up, this section highlights the following aspects of the service design handover: a handover may contain both activities and deliverables and can be seen as continuously taking place as long as consultants are involved. The interviewees had few comments regarding handover activities but had experienced challenges regarding handover deliverables. Three categories of deliverables were described; project documentation, service concepts and the service design roadmap.

Discussion

This section discusses some implications of the findings presented in the previous section, with an emphasis on the suggested concept of service design roadmaps. The following aspects of service design roadmaps are discussed; firstly, there seems to be a need for more research regarding the service design handover. Secondly, the distinction between a service design handover and the concept of a service design roadmap is suggested. The third aspect describes differences between a service design roadmap and a service blueprint.

a. The handover is critical and requires further investigation

The analyzed interview material identifies the handover from service design consultants to the receiving stakeholders as a critical point in the later development phases. Neither the later phases of development nor the service design handover have been explored sufficiently in service design research. Furthermore, this study suggests that a service design roadmap has potential to be an important element of a handover.

As argued for by Yu, there is a need for research on “how Service Design processes and outcomes can be better linked with and integrated within the development stages of services to enhance more effective implementation” (2014, p. 202). Drawing on Yu’s reasoning and the coinciding analyzed interview results, I argue that there is a need for further exploration of the handover, and of the concept of service design roadmapping, as contributions to research of the later service development phases.

b. A service design roadmap can be an important component of a handover

In order to clarify the concept of a service design roadmap, this paragraph describes its distinction from service design handovers. The service design handover is an overarching concept, describing all interactions of knowledge transfer, continuously through a process, to the point when the consultants leave. By knowledge, I mean generated information, insights and results. The handover consists of both activities and deliverables. The concept of service design roadmapping on the other hand, can be seen as a strategic planning process aiming to prepare the receiver for the process after the consultants have left. The outcome of this process is the service design roadmap, which might support clients to use handover deliverables further, after the service design consultants have left. In other words, a service design roadmap can be *one* of several service design handovers, while a service design handover does not have to contain a service design roadmap.

c. Service design roadmaps and service blueprints

A service blueprint typically specifies the currently offered service or a desired service process, and the focus lies on making the service concept as concrete as possible (Bitner et al., 2008). Bitner et al. suggests that the final challenge of a service blueprinting process is translating the blueprint into detailed implementation plans (2008, p. 5). I argue that a service design roadmapping approach may support this transition. I am suggesting that a service design roadmap might function as a *detailed implementation plan*, by depicting not only the desired service, but also recommending how to get there. To sum up, while the focus of service blueprints is the desired service, the focus of a service design roadmap is the implementation process.

Conclusions and further work

By focusing on the service design handover, this paper contributes to an understanding of the later service development phases, where there is still much room for service design research. The inquiry of the handover led to the question: How can one support development teams receiving service design handovers, to make use of this material in the later process phases? Based on the findings from the analyzed interview and observation material, I suggest that the concept of a service design roadmap, which might have potential to support development teams in the later phases. Two relevant directions for future work related to the concept of service design roadmaps are:

a.) *exploring the taxonomy of a service design roadmap*. My suggestion of a service design roadmapping approach opens up further new questions: which steps and activities should a service design roadmapping contain, in order to develop a relevant service design roadmap? Which elements should a service design roadmap contain? When exploring these areas, it is highly relevant to draw on expertise from design consultancies in combination with relevant theory from other disciplines, such as the technology roadmapping approach (Phaal & Muller, 2009);

b.) *exploring the relationships between a service design roadmap and user insight drift* (Almqvist, 2017). Research studying user involvement in the later phases is so far limited. Drawing on this I argue for the importance of exploring the representation of user insights in service design roadmaps, as a means to support keeping a user centered focus throughout the process. Moreover, exploring how service design roadmaps might support development teams to avoid drifting away from identified user needs during later process stages, a notion I describe in a previous study as *user insight drift* (Almqvist, 2017).

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