STRATEGIES AND TACTICS FOR SERVICE IMPLEMENTATION

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ABSTRACT

In the professional service design community, service implementation is often perceived as a challenge to service designers who are critiqued for having difficulties in following through with their work form concept design to implementation. This paper presents a conceptual framework for service implementation that builds upon and enhances the notion of implementation as a mind-set (rather than a phase) within which service designers operate already from the beginning of a service design project or -collaboration. Through a case study analysis of a service design project from a hospital context, this paper scrutinises the conceptual framework and identifies the characteristics of how a design team accommodated successful implementation of a service solution - a redesigned blood bank service. The analysis shows that the design team followed an emergent and exploratory implementation strategy. The conceptual framework helped grasp the complexity of how implementation was accommodated throughout the project period.

INTRODUCTION

To implement new service initiatives in organisations on the basis of service design projects is an often-mentioned challenge in the professional service design community; e.g. (Lin et al. 2011, Kronquist, Koivisto & Vaajakallio 2014, Keller et al. 2013, Schaeper 2013) . It is indicated that designers have difficulties in following through with their work from concept design to implementation and that the result of successful service design processes often end up on the "concept shelf" without ever going live (Kronquist, Koivisto & Vaajakallio 2014) .

Designers not only receive criticism from own ranks. In a review of the role of design within public and social innovation, designers' lack of skills within implementation is seen as a critical weakness: "Many would concede that design methods widen the menu of options available to public services. But they warn that lack of attention to economics – ensuring that ideas are cost–effective – and lack of attention to organisational issues and cultures, condemns too many ideas to staying on the drawing board." (Mulgan 2014 p4) .

This paper addresses designers' skills in implementation. However, instead of focusing on what designers lack, e.g. attention to economics and organisational issues, it investigates what designers already do in order to accommodate effective implementation. Hereby, aiming at creating a foundation to learn from and build upon.

A conceptual framework developed on the basis of existing theory with the notion of implementation as a mind-set (rather than a phase) introduces the terms service implementation strategy and service implementation tactics. These terms relate to how designers accommodate implementation from the early stages of a service design project. The framework will function as an analytical lens in the investigation of how implementation was addressed in a specific case. The case is based on a service design project from 2012 in which an in-house design team at Aalborg University Hospital in Denmark redesigned the service of two unmanned blood depots; i.e. a redesign of a blood bank service for nurses.

This analysis has two purposes: 1) To scrutinise the conceptual framework, and 2) to identify the characteristics of how the design team addressed implementation in the specific case. The aim is to

inspire other designers and researchers working within the field of redesigning (e.g. hospital) services.

SERVICE IMPLEMENTATION

The following section will bring insight into how implementation is addressed in existing design literature. Firstly, by outlining four different types of implementation in relation to service design, and secondly, by presenting examples on tools and guidelines for implementation of service solutions that can be found in current literature within the fields of service design, participatory design and social innovation.

UNDERSTANDING SERVICE IMPLEMENTATION

In current service design literature, implementation is reported in different ways. The following two distinct examples illustrate some of the differences and will serve as basis for identifying how implementation is addressed in this paper.

Lin et al (2011) addresses implementation of a particular service solution (called Nurse Knowledge Exchange) in different hospital departments (contexts detached from where it was originally created). In contrast, Bailey (2012) addresses implementation (or embedment) of service design skills (methods and practices) in a particular local context.

The two examples illustrate differences in relation to *what* is implemented and *where* it is implemented. In relation to *what* is implemented, Lin et al (2011) refer to a service *solution* whereas Bailey (2012) refers to service design *skills*. In relation to *where* it is implemented, Bailey (2012) refers to a *local* context whereas Lin et al (2011) refer to a context outside the local context. In this paper, the context outside the local context will be called the *global* context - although it is not necessarily worldwide. These distinctions in regards to *what* and *where* give four different types of implementation (Q1, Q2, Q3, and Q4) related to service design as seen in figure 1.
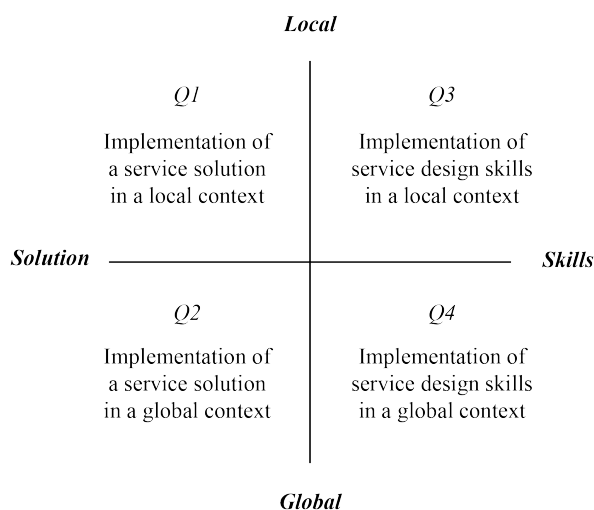

Figure 1: Four types of implementation in service design.

In this paper, *service implementation* is defined as the implementation of a service solution in a local or global context, i.e. the understandings that can be found in Q1 and Q2. The focus of this paper is, however, limited to the understanding found in Q1: Implementation of a service solution in a local context. This is due to the character of the case, which focuses on design and implementation of a service solution in a local organisational context.

TOOLS AND GUIDELINES FOR SERVICE IMPLEMENTATION

In current textbooks on service design, service implementation (mainly Q1) is described as one step out of four in an iterative process (Stickdorn, Schneider 2010), defined as a phase (Bechmann 2010), or seems to have been classified as prototyping and measurement (Polaine, Løvlie & Reason 2013) . The latter might be a matter of definitions of terms, however, it indicates diverse suggestions for how implementation should be viewed, approached and accommodated by designers in service design projects.

Stickdorn and Schneider (2010) present some very hand-on tools for implementation that include: Storytelling, Service Blueprints, Service Roleplay, Customer Lifecycle Maps and Business Model Canvas. Although these tools are presented in the context of implementation, they can have other purposes as well.

Stickdorn and Schneider also refer to basic change management principles, such as "planning change, implementing change and reviewing change" (Stickdorn, Schneider 2010 p134) , and provide some general considerations for each of the three principles such as: "The change should be based on a consistent service concept formulated and tested during the previous stages" (Stickdorn, Schneider 2010 p134) , "Implementing change relies on the fact that the management is convinced of the service concept and does not flinch from any resulting problems while implementing the change" (Stickdorn, Schneider 2010 p135) , and "Ideally, the change implementation is followed by another exploration to evaluate its progress." (Stickdorn, Schneider 2010 p135) .

COLLAPSING THE DESIGN PROCESS

Considerations concerning how designers can accommodate implementation of service solutions during the design process can also be found within participatory design and social innovation.

Within the field of participatory design, Halse et al (2010) introduce the idea of *rehearsing the future* and argue that "innovation as a process of change and learning makes it obvious that invention has to go hand in hand with rehearsing what this invention entails" (Halse et al. 2010 p179) . The authors argue that the idea of rehearsing the future "collapses the front end and the back end of the design process, in that we already from the very beginning do what is usually in

the end: rehearsing the relationships and practices that follow with a new artefact." (Halse et al. 2010 p17) .

They bring forward prototyping as a way of rehearsing the future and state that "acting it out gives innovation a thrust that bridges the gap between plan and implementation" (Halse et al. 2010 p179) . They furthermore introduce ideas such as *All in a box* (Halse et al. 2010 p59) as a new format of project deliverables that invite and facilitate the "re-enactment" of the innovation process which can be used when learnings from an innovation process is "scaled up" and brought outside the project group; i.e. implemented in a local or global context (Q1 and Q2).

Within social innovation, Hillgreen, Seravalli & Emilson (2011) introduce the concept of *infrastructuring*. Infrastructuring is an open-ended long-term-process where diverse stakeholders can innovate together. This is contrary to short-term design projects and a relevant issue as it questions the foundation of several service design cases, often organised as short-term projects.

To sum up, current literature on service implementation shows a landscape of very diverse tools, approaches, guidelines and considerations – some of which have been presented here. In the following section, this paper introduces a conceptual framework that aims at creating a holistic view on implementation and tries to embrace the complexity of the above-mentioned tools, approaches, guidelines and considerations for service implementation in organisational contexts.

FRAMEWORK

A CONCEPTUAL FRAMEWORK FOR SERVICE IMPLEMENTATION

The conceptual framework builds on two core terms: Service implementation strategy and service implementation tactics. The terms have been coined to enable a wide perspective on how designers accommodate implementation; i.e. is not limited to e.g. tools only.

Service implementation tactics are defined as specific actions, methods or approaches that aim at accommodating the implementation of service solutions in a specific context. The use of prototyping, storytelling, service blueprinting, all in a box, infrastructuring, etc. fit into this concept because they are all possible actions, methods or approaches for designers to accommodate implementation of new service solutions in (organisational) contexts.

Service implementation tactics often have other purposes than implementation itself. Service blueprinting, for example, can be a mean for designers to create and specify a service concept just as well as it can be a mean to better communicate the details of a service solution to the stakeholder who should perform the actual change.

Service implementation tactics are not tied to a (last) phase in the design process. Infrastructuring, for example, is a tactic that is determined in the earliest phases of a collaboration and thus an implementation tactic that designers (and others) employ from the very beginning.

In this way, the idea of service implementation tactics (and service implementation in general) is in line with the idea of collapsing the front end and the back end of the design process (Halse et al. 2010) because what is usually seen as the end, is here seen as a vital part of the beginning: how to accommodate implementation.

This entails that the meaning of service implementation becomes more complex as it cannot be reduced to a specific phase of a process - it is rather a *mind-set* in which the design- and project team operate during the entire project or collaboration and which requires a way of thinking that is focused on accommodating implementation.

As implementation tactics are defined as specific actions, methods or approaches to accommodate implementation, *implementation strategy* is defined as the overall plan or pattern for how this aim is reached through the specific tactics.

The terms strategy and tactic are widely used within many different disciplines (including design). Within management research in particular, strategy is a fundamental concept with an extensive vocabulary that help support and nuance discussions. Henry Mintzberg (1987) defines strategy as "consistency in behaviour, whether or not intended". With this, he refers to that strategies can be intended (planned) or realized (as a pattern in a stream of actions) – as well as deliberate (when plan meets pattern), emergent (when a pattern was not planned) and unrealized (when only planned) (fig. 2).
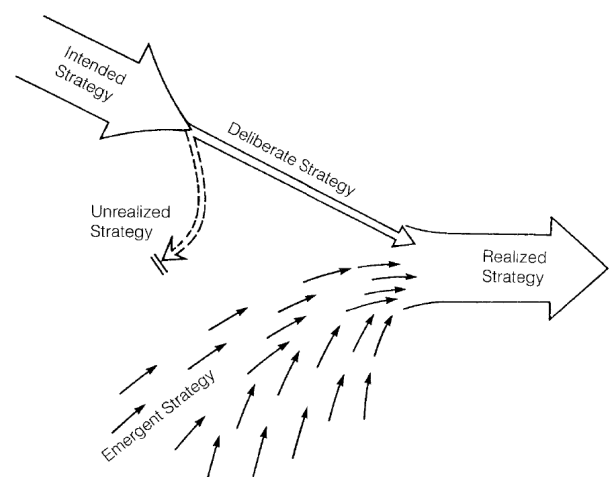

Figure 2: Deliberate and emergent strategies (Mintzberg 1987 p14).

Although the definitions of intended, realized, unrealized, deliberate and emergent strategies are developed within the field of management, they are very generic and therefore found applicable within the

context of service implementation in order to support the conceptual framework and the analysis of the specific case.

MODEL FOR ANALYSIS

The conceptual framework has been developed into a simple model (Model 1). The model has been developed in parallel with the analysis of the case and thus been revised several times. In addition to service implementation strategy and –tactics, the model introduces *service implementation aim* and -*conditions*. Aim refers to the intention or objective of implementation. Conditions refer to the project characteristics, organisational context, resources, etc. which are given, but not necessarily static.
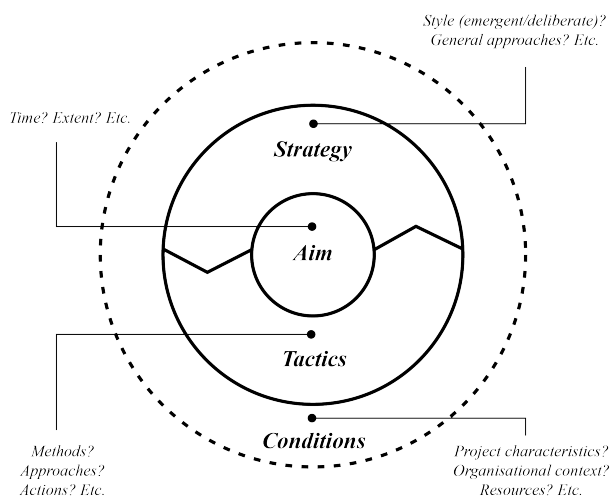
Model 1: Model for analysis of service implementation strategies (intended or realized).

CASE DESCRIPTION

THE CASE OF THE UNMANNED BLOOD DEPOTS

At the in-house innovation unit Idéklinikken in the North Region of Denmark, service design is applied as an approach to improve and innovate hospital services for both patients and staff. In 2012, a design team from Idéklinikken facilitated a service design project in collaboration with the Clinical Immunological Department at Aalborg University Hospital. The Clinical Immunological Department is responsible for the daily operation of the blood bank and will in the following be referred to as the CID. The design team consisted of two designers (the author of this paper included) and one anthropologist.

The focus of the project was to redesign the service of two unmanned blood depots, i.e. two physical locations where nurses can collect bags of blood for their patients without the need for assistance from staff of the CID.

The project was initiated on the basis of a recurrent problem: Six times a months in average, the CID registered a lack of electronic control of blood bags collected from the unmanned blood depots. Blood transfusion, i.e. giving blood donations to patients, is a

serious matter. Giving a wrong type of blood to a patient can have a fatal outcome. This means that the procedure around collecting blood and giving a blood transfusion must be carefully followed in all situations - in this case, this did not always happen.

The primary aim of the project was to raise patient safety and support the work procedures both for nurses (the service consumers) and for the staff of the CID (the service providers). This included reducing the lack of electronic controls of blood bags collected from the unmanned blood depots.

PROJECT OUTCOME

The project outcome was incremental rather than radical: It was more about re-organising how things were done rather than inventing new things to do. The project was very successful, though. It resulted in a well-described service concept with different ideas for how to improve the existing work procedures. The main idea was a rearrangement of the steps in the procedure for collecting blood. This entailed that an essential document for giving a patient a blood transfusion (the blood transfusion journal) was not accessible for the nurse until the bag of blood had been electronically controlled (scanned) and thus matched with the patient information.

The concept also included several other ideas: Changes in printed material, IT-system, monitoring system, use of ID-cards, etc., which all aimed at increasing patient safety and easing the work procedures for nurses and the CID.

Most of the ideas were implemented soon after they had been developed and less than one year after the project was initialised, all bags leaving the unmanned blood depots were electronically controlled. The latter was the primary success criterion of the project.

RESEARCH METHOD

In the service design project, the author of this paper had an active role as designer. The primary research methodology can be characterised as action research (Levin 1946) as the researcher participated in the specific problem solving activity (redesigning the bloodbank service) while creating new forms of understandings by combing theory and practice. Reflections and assumptions has continuously been shared and discussed with project stakeholders.

The specific analysis of the service implementation strategy of the case is based on a review of all the project activities phase by phase through the lens of Model 1. Understandings and assumptions have been evaluated by looking into the extensive data material from the project; this included project documents (design brief, emails, etc.), video- and sound recordings from meetings between designers and healthcare professionals and personal notes on experiences gained from the project. The final conclusions have been

shared and discussed with a member of the design team and with the manager of the unmanned blood depots.

CASE ANALYSIS

INTENDED SERVICE IMPLEMENTATION STRATEGY

Although the project had a quite specific scope, the brief was still open. It meant that the project team did not know what kind of solution they would end up with - it could be IT-based or analogue, very simple or very complex. This entailed that a detailed implementation strategy on how a specific set of actions would lead to a desired aim could not be formulated. However, in spite of not having a well-formulated intended strategy, the design team worked very determinedly to accommodate implementation throughout the project.

First of all, the project had a clear implementation *aim*: The CID had a very specific problem that needed to be solved, and therefore the project aimed at a quick and lasting implementation of the service solution(s).

A general *condition* for the project was the support from the top management of the hospital. A member of the management had said, that finding a solution to the lack of control of blood bags collected from the unmanned blood depots was of high priority. The project was furthermore initiated by the CID, which made them highly motivated to do the project.

Other relevant conditions for implementation included the project characteristics: The project concerned redesigning an existing service and the project scope was relatively narrow – the job was not to invent a whole new service for blood transfusions in general. Further more, the was owned by one department only (the CID), which entailed that they held the primary decision power to introduce changes.

The existing service was based on a very formalised and strict rule system; Nurses had to follow a specific procedure in order for the CID to document that every bag of blood had been donated correctly and met the strict requirements for quality control. It further more contained standard elements such as the blood bag itself, which followed a European standard.

The financial resources to make the actual changes, e.g. buying new equipment, were limited. However, human resources were available in the sense that three highly motivated representatives from the CID were willing to spend both time and energy on the project. These representatives had the mandate and competences to make the service changes happen, as they were the ones who were running the service – and also the ones who had originally designed it.

Nurses from selected departments (the service consumers) were able to spend time on the project as long as it could be done on the premises of their daily work and the accompanying risk of interruptions or cancellations. At last, the design team was a significant resource.

In general, the implementation aim and the implementation conditions were quite clear. However, how the design team would reach the aim under the specific conditions was not very clear. Thoughts about creating a high degree of stakeholder involvement, placing project ownership at the CID, including implementation in the time schedule and facilitating implementation through prototyping and service blueprints were discussed in the design team from the beginning of the project, however, never decided upon or explicitly formulated. As such, the design team had intentions and ideas regarding how to accommodate implementation, but not as such a planned strategy.

SERVICE IMPLEMENTATION TACTICS

During the project, the design team explored a wide range of different implementation tactics; Actions, methods and approaches targeting different aspects – but all with implicit aims of accommodating implementation. General themes of the different tactics will be highlighted in italic in the following description of how the design team accommodated implementation throughout the project.

From the very beginning of the project, the design team *planned for implementation* by including it in design brief. Similar to a typical consultant approach, a structured process with descriptions of the different process stages was presented in the design brief (fig. 3).
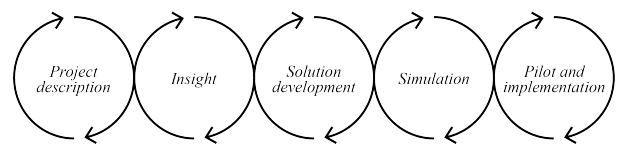

Figure 3: The project approach as illustrated in the design brief.

Among others, the process stages included Simulation (= Prototyping) and Piloting and Implementation, which were described as detailed as the open brief allowed. The project could in this sense not be characterised as infrastructuring (Hillgren, Seravalli & Emilson 2011) , but as the design team did not work with a fixed time budget, the time schedule and project description was open to significant adjustments. The latter was, however, not found relevant.

Planning for implementation also entailed *committing to implementation* by giving the promise of it in public. In the project group, the design team and the representatives from the CID signed the design brief and thus promised each other that the final result of the project would lead to real changes in the existing service. Because the design brief and project plan was shared in the organisation through meetings and emails, this promise was furthermore shared with relevant stakeholders in the organisation – including the service consumers.

Another early tactic was *forming a small, competent and powerful project group*. From the CID, the project group members were the manager of the unmanned blood-depots, the IT-responsible and the chief bio-

analyst who was also member of the general management of the department. These three people together with the design team (also three people) constituted the project group. This group had the mandate to introduce most changes to the existing service. Furthermore, an extended project group was formed with key stakeholders from the different departments (nurses and managers) who would come together for workshops and concept feedback sessions.

The design team aimed at *gaining wide project support* in the organisation. Initially, management representatives from all departments that could be affected by the project were invited to a project kick-off meeting. App. 25 people showed up, which was more than expected. At the meeting, the project team received additional enquiries from departments who wanted to take active part in the project.

In order to secure continuous support, information emails were sent out to management representatives of all affected departments when the project moved into new stages.

The role of project manager was given to one of the designers due to her experience with running similar projects. In this context, the design team was very concerned with *placing the project ownership at the CID and creating ownership for new service solutions within selected departments*. Without knowing how exactly to approach this, the design team experimented with different initiatives.

In the design brief, it was clearly pointed out that the CID had the full project ownership and that this included responsibilities such as gaining internal project support in their department, contributing with human and material resources, etc. The design team also made sure that all project material (emails and different information material, etc.) had the CID as sender even though the design team had prepared it. In order to maintain this formal but also mental placement of ownership, the design team emailed short weekly updates to the representatives from the CID to keep them informed about all project activities which they were not always part of.

Co-design workshops with different aims and formats were a central approach to support ownership of ideas for new service solutions - both among representatives from the CID as well as from the departments.

To create ownership for new service solution not only among workshop participant but also among other future service providers (staff of CID) and service consumers (nurses), the design team experimented with creating material that would *enable co-design outside workshop settings*. This included storyboards of concepts disassembled and printed as sets of cards that could be brought into lunch rooms in the different department and 'mixed and matched' into new (an hopefully better) concepts during breaks (Fig. 4).

Figure 4 – The three representatives from the CID are discussing the different concepts illustrated in scenario cards.

This tactic was very successful at the CID. The cards were not 'mixed and matched' by staff, but the initiative was seen as a nice gesture that supported a positive attitude towards the project. In the nurses' departments, the tactic was not very successful, though. Some nurses refused to bring the set of cards to their departments, because the department cultures and time priorities did not leave room for idea generation and democratic discussions on how to collect blood. This experience showed that the particular tactic for involvement and distribution of ownership had very different outcome dependent on stakeholders and physical setting.

In the beginning of the project, the design team believed that they would have a great role in designing detailed service blueprints, roadmaps and specific touchpoints which would be key remedies for implementation. However, as the simulation (i.e. experience prototyping) was finished, the role of the design team diminished. From that stage, the CID took the full responsibility for making the actual changes: They bought new equipment, arranged with the technical department to connect the new equipment with their existing system, ordered an update to their IT-system with descriptions of what needed to be changed, etc. They also prioritised to have staff inside the unmanned blood depots for a longer period in order to train nurses in the new procedure. As a supplement to this, they even made an instruction video and uploaded it to PRI (their database for instructions). No service blueprints, detailed touchpoint designs or roadmaps were necessary.

For the CID this came very natural. For the design team, however, this was initially perceived to be a bit odd. The hand-over of the project was neither particularly detailed nor very material – it was not very "designed". *The design team had to let go, trust and believe* that the CID had learned enough from the process to finish up the details in a manner that was most suitable for them (the service providers) as well as the nurses (the service consumers).

In the end, what was changed in the existing service did the job – the lack of controls of blood bags was reduced 100%. However, the details of the changes did not always follow the intended ideas of the design team. An

idea of a low-tech monitoring-system that enabled the CID to keep constant track on the supply of a particular kind of blood was introduced as a mean to ease the procedure for the nurses. The CID chose to introduce this system. However, they did not choose to take away some of the existing steps in the procedure which was the original idea. This, of-course, resulted in better control of the supply of blood bags, but it did not ease the job for the nurses. In this case, the design team was not persistent in their belief of the concept, but chose a compliant attitude that acknowledged the CID as project owners and final decision makers.

How to scope the project was a central challenge that let to continuous discussions internally in the design team and in the project group. Initially, the project scope was very narrow. The design team intended to focus on a specific type of blood bag: The most common type for which the CID could document that the procedure was not always followed. This focus did not include, for example, that nurses in some cases broke the formal rules and collected several bags of blood simultaneously - A finding that early ethnographic studies had led to. In opposition to the initial issue (lack of electronic control of blood bags), these newly identified issues were not something the CID was prepared to change. In this situation, the design team used a slightly more provocative attitude in order to (if not lead to a service change then) make them reflect upon why this should not be changed (elaborated by Christiansen et al (2013)).

The design team aimed at *creating feasible solutions* that would lead to rapid implementation. It is obvious that a service solution which would require entire new IT-systems, expensive equipment and completely new procedures would be more difficult to implement than e.g. motivating nurses to follow the existing procedure by placing a basket of candy at a strategic spot (a solution already tried out by the CID).

The design team aimed at creating solutions that would have maximum effect with minimum effort. One could say that if the basket of candy had done the job, that could have been a sufficient solution – however, it did not do the job. In this context, identifying 'locked' service elements was a significant approach. I.e. service elements that were particularly difficult to change. An example of this was the blood bag itself, which followed a fixed European standard.

The design team also found it their responsibility to make sure that the solution was based on a future proof foundation (e.g. making sure that it was in the plans of the hospital to keep the unmanned blood depots). In this context, the design team worked with different timelines: 'Here and now', 'in between' and '10 years ahead'. It was, however, a balancing act to design for the future while simultaneously design for here and now because the physical locations of the hospital would change dramatically the coming years. At first, the design team tried to separate the visionary and radical

from the pragmatic and incremental into two different solution spaces. However, it was soon realised that they had to focus solely on 'here and now' - of-course, with the cost of not thinking through the more visionary solutions.

DISCUSSION

CHARACTERISTICS OF REALIZED SERVICE IMPLEMENTATION STRATEGY

The service implementation strategy of the case (fig. 5) can be characterised as emergent; a pattern formed by the design team's use of different exploratory tactics (actions, methods and approaches), which were brought into play at different stages in the process.

Quick implementation of long-lasting service solution(s) in a local context.

Emergent strategy with explorative use of various tactics within which creation of ownership and collaborative learning were particularly significant.

Planning for implementation. Committing to implementation. Forming a small, competent and powerful project group. Gaining wide support in organisation. Placing the project ownership at the CID and creating ownership for new service solutions within selected departments (e.g. through co-design workshops) Letting go and not over-designing. Creating feasible solutions.

Top management support. Project initiated by service provider. Redesign of formalised and rule-based service. Narrow project scope. Limited financial budget, but adequate access to human ressources.
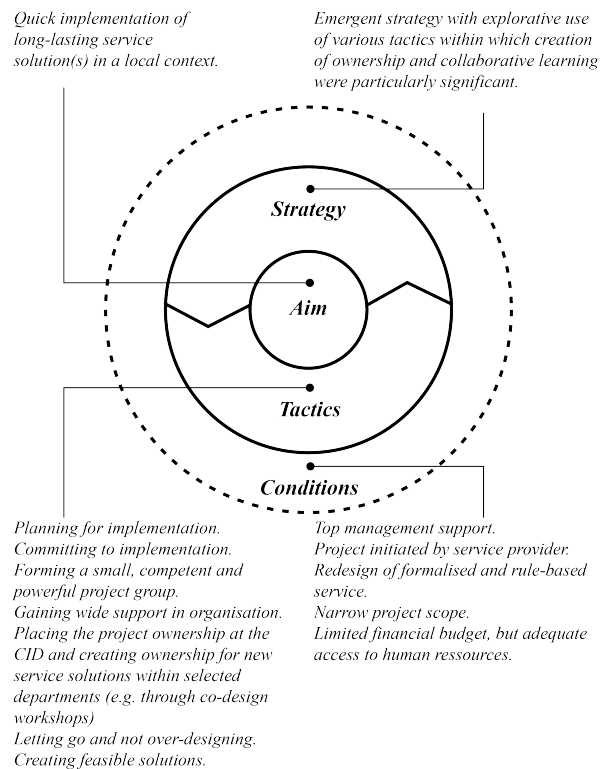
Figure 5: Realized service implementation strategy.

It cannot be stated that one tactic alone determined the outcome; it was rather the combination of different tactics. Tactics related to placing project ownership at the CID were, however, seen as a vital reason for why the CID took the lead on introducing the actual changes to the existing service, and why they managed to do so without detailed service blueprints, roadmaps and touchpoint descriptions. Because of their ownership to the project and the project ideas, they were able to continue the work without the interference of the design team.

CONCEPTUAL FRAMEWORK AS ANALYTIC LENS

The conceptual framework proved to be a useful tool for analysis of how service implementation was accommodated in the specific case. The framework helped to grasp the complexity of how the design team

accommodated implementation throughout the project period, and thus enabled a comprehensive answer to why the project led to successful implementation.

In the conceptual framework, service implementation tactics were defined very broadly as actions, methods and approaches that accommodate implementation. This was done in order to enable a wide analysis that was not limited to e.g. only tools. Implementation tactics could, however, benefit from some kind of categorisation in order to support and nuance future case studies. Such categorisations could visualise different tactic types (E.g.: Does a tactic characterise as a method or an action?) or different tactic themes (E.g.: Does a tactic relate to the project setup or to creation of ownership?).

The implementation strategy in the specific case was characterised as emergent (Mintzberg 1987). Experiences gained in this particular case would probably benefit a similar case and thus, a more deliberate strategy could be an advantage. In this case, Model 1 could potentially be used as a proactive tool. Using the model as a proactive tool could be an interesting subject for further investigation as it raises several questions: Does the model increase the consciousness of implementation during the design process and does this help the design team overcome some of the challenges of implementation? Does planned implementation strategies have negative consequences, such as 'fixing' the understanding of the problem and how it should be solved? What happens to service design and creation when stronger emphasis is put on implementation? These questions could be interesting subjects for future research.

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