Service Design - a conceptualization of an emerging practice

Katarina Wetter Edman

Licentiate thesis

UNIVERSITY OF GOTHENBURG

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Acknowledgements

I resisted as long as I could, not seeing myself as a scholarly person. I was (and still am) a designer – yet there was someone more persistent than me. Now, some six to seven years after the first persuasive attempts, I am very happy to be part of academia. The person I have to thank for this is Professor Ulla Johansson. I also thank you, Ulla, for opening doors for me in an almost entirely new world and sharing both professional and personal experiences.

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I have needed much practical support for sorting out everyday life: this has been given by my parents Klas and Eva and my in-laws, Maj and Bo. Thank you for making it possible for Tomas and me to combine work and family. I give extra thanks to my parents, because you always believe in me and support me wherever and in whatever I have decided to go and do. You give me (and the rest of the family) an enormous amount of practical support, but not least mental support, thank you! Sara, Ludvig och Alexander: Tack för att ni gör mitt liv rikare. Stina and Jakob, tack för att ni finns och hjälper mig att bara vara – här och nu.

Tomas, you know how much you mean to me. Thank you for being there for our family and me when I have been absent in mind or body. I could never have done this without you at my side.

Hackvad, 23rd of August 2011

Katarina Wetter Edman

Abstract

Title: Service Design - a conceptualization of an emerging practice
Language: English
Keywords: service design, design practice, design management, user involvement, service marketing/management, Service-Dominant logic
ISBN: 978-91-978477-7-3

Service design is an emerging design practice with an interdisciplinary heritage. Most previous research has been based on what service designers do; with the increased academic interest in service design over the past decade, the time has come to conceptualize the underlying discourses. The main purpose of this thesis is to contribute knowledge to the emerging service design discourse through conceptual comparisons of key concepts in the design and service management literatures.

This theoretical licentiate thesis consists of a main body text, a Kappa, situating two previously published papers in the research context. The conceptual framework encompasses areas of design research, including design thinking, service design and design management. These areas are related to management research, with a specific focus on service marketing/management, including Service-Dominant logic and service innovation.

The thesis includes an interdisciplinary literature review with a specific focus on how user involvement is conceptualized in service design and service management respectively, and develops a conceptual framework of service design based in descriptions of service design practice in the literature. The framework presents service design through five characteristics, as an 1) interdisciplinary practice, using 2) visualization & prototyping, and 3) participation as means for developing the design object, seen as 4) transformation, and 5) value creation. This framework leads to an understanding of service design practice as a continuously repositioning activity.

The thesis argues that the relation between service marketing/management and service design is complementary, particularly in tools and methods for user involvement and co-creation, and therefore the relation is mutually productive. It further argues that design practice can help realize Service Dominant logic, and a service perspective can help open up new positions for design practice.

In sum, this thesis contributes knowledge that enriches the understanding and relevance of service marketing/management for the design discourse and vice versa.

Sammanfattning

Title: Service Design - a conceptualization of an emerging practice
Language: English
Keywords: tjänstedesign, designpraktik, design management, användarinvolvering, Service marketing/management, tjänstedominant logik
ISBN: 978-91-978477-7-3

Tjänstedesign, är till sin natur tvärvetenskaplig med rötter både inom design och service management/marketing tradition. Tidigare designforskning har främst baserats på vad en tjänstedesigner gör och relaterar i liten grad till det mer etablerade service marketing/management området. Trots det ökade akademiska intresset för utformning av tjänster under det senaste decenniet saknas det en mer teoretiskt orienterad tjänstedesigndiskurs. Licentiatuppsatsen bidrar med kunskap som berikar förståelsen och betydelsen av service marketing/management för tjänstedesigndiskursen och vice versa genom att fokusera på gemensamma begrepp såsom användarinvolvering och samskapande (co-creation).

Denna teoretiska licentiatuppsats består av en huvudtext (Kappa), och två tidigare publicerade artiklar, kappan positioner artiklarna i ett teoretiskt ramverk. Ramverket är tvär vetenskapligt och består av designforskning med fokus på ”design thinking”, tjänstedesign och design management. Dessa områden relateras till managementforskning, med särskild inriktning på service marketing/management, Service-Dominant logic – tjänstelogik samt tjänsteinnovation. En tvärvetenskaplig litteraturöversikt fokuserar på hur användarinvolvering konceptualiserats inom tjänstedesign respektive service management diskurserna.

I kappan utvecklas även en konceptuell modell för tjänstedesign baserad på beskrivningar i litteraturen. Modellen beskriver tjänstedesign som en 1) tvärvetenskaplig praktik som med hjälp av 2) visualisering & prototyping, och med 3) deltagande som medel utvecklar designobjekt, som förstås som 4) transformation, och 5) värdeskapande. Tjänstedesign beskrivs vidare som en aktivitet som kontinuerligt förändrar perspektiv och utgångspunkter.

Den första artikeln jämför relationen mellan ’S-D logic’ och ’design thinking’. Den andra undersöker hur tjänstedesignpraktik baserad i industridesign förhåller sig till samskapande och designdriven innovation.

Licentiatuppsatsen visar att det finns ett kompletterande samband mellan service marketing/management och tjänstedesign, framför allt i verktyg och metoder för användarnas delaktighet och medskapande. Vidare föreslås att tjänstedesign kan bidra till att realisera tjänstelogiken - Service-Dominant logic, och att ett tjänsteperspektiv kan bidra till att öppna nya möjligheter för designpraktiken.

Table of Contents

List of appended papers

Paper I: Wetter-Edman, K. (2010) Comparing Design Thinking with Service-Dominant logic**,** *Research Design Journal***,** *2* **(2**), 39-45

Paper II: Wetter-Edman, K., & Johansson, U. (2011, May).
The Meander Model– a metaphor for user involvement in service design. *In proceedings of EAD9, 2011: 9th International Conference of the European Academy of Design, The Endless End (pp. 868-881),* Porto.

CHAPTER 1

Introduction
A personal prelude, or why taking a conceptual approach?

- *Red,* said the marketing person responsible for the segment, *it must be red! Red sells best!*

- *Well no*, *I think it should be green*, I said, looking at the two different prototypes of the toy engines standing at the desk in front of us.

- *Green products always get left till last…* she said, confident that her argument would win.

I was having one of my first conflicts as a design manager at a Swedish toy company. We seemingly discussed the color of a toy, but there was definitely more to the story.

This was my first job after finishing my Master in Industrial Design. I had been trained in artistic skills such as how to sketch and make prototypes, and painting and sculpture were large part of the curriculum. I was taught through practice in a studio setting how to transfer this knowledge into the development of aesthetically pleasing products, and how to question the reason for new products. There was a little instruction on project management, and a lot of focus on the design process, its character and phases, and also on reformulation of briefs and problems. However, there was very little about the context I would later find myself in as practicing designer – interacting with colleagues who had not shared my type of educational experiences. Designers do not work in a vacuum: there is always a commissioning firm for the consultant, or as in this situation, employment within an organization. Yet here I was, discussing the color of a toy engine shaped like a horse, as if my life depended upon it.

I found myself not really knowing what knowledge or experience to rely on, and not at all confident in the situation. From my perspective the toy was part of a segment of several toys. When taken together with the others, the green one would be a perfect complement in the catalogue, on the shelf, and in the playroom. My colleague focused on sales and the speed of which the goods moved from the shelves. Hers was not an unimportant argument, but from my perspective the purchase situation was only one of several to take into account.

I believe this situation and several others that were to follow are key to why I have chosen to pursue a PhD on this topic. Our different views on what information was important to consider, how we approached the situation, and my lack of knowledge and ability in handling it have brought me here. I do think theoretical knowledge is somewhat undervalued in design education; I also believe that some more of the same could have helped me to better understand the situation I was in. Hopefully writing this thesis not only has deepened my own knowledge and understanding, and thereby awareness, but also can prepare others to better handle similar situations in the future.

In light of my experience since that first encounter, the thoughts developed in this present work circle around the emerging practice of service design. Lately, instead of the toys I was part of designing, services have become a new area for design practice, with examples as diverse as private banking and insurance systems, health care and public services, air travel or extensions of a product such as maintenance.

Design of service originates from a number of design areas as well as service marketing/management perspectives; I discuss issues that relate to the encounter of these different perspectives and practices. Together these issues form a conceptual platform for service design. However, I also include aspects such as seeing service as a perspective that relates to the broader frame of reference for researchers interested in the relations of design and management. I now position my research through an overview of these research areas and discuss interests that I develop further throughout this thesis.

POSITION OF RESEARCH

This licentiate research project is situated in the overlapping areas of management and design research, as shown in Figure 1 below.

Within management, service marketing/management has developed as a separate area, so the point of departure for my theoretical positioning will

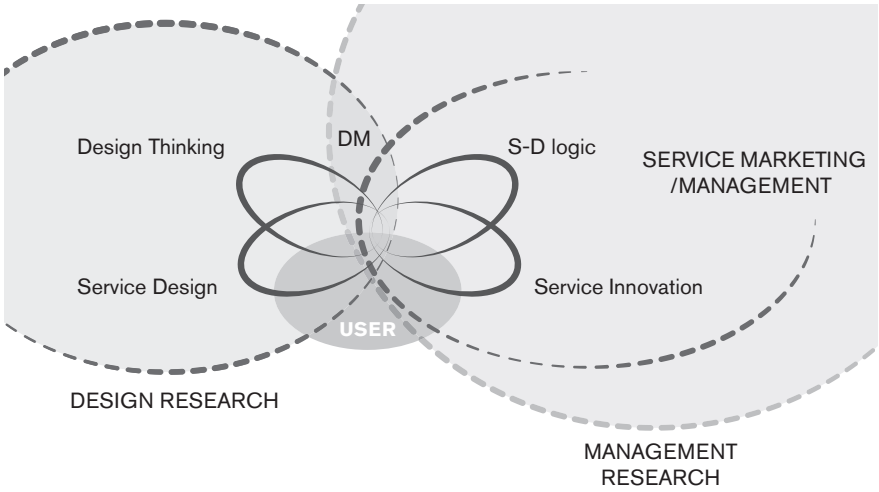


Figure 1. Theoretical landscape of licentiate thesis

therefore be service management research on one side and design, where I have my own background, on the other side. Within these two larger areas there are several more specific research areas relevant to my research, all of these are of an interdisciplinary character but sit more solidly on one side or the other. Service design is research and practice concerned with the development of service, departing from a design practice perspective. Service innovation, on the other side, is also focused on service development and innovation but departs from managerial practices and theories. Design thinking is double-sided with one understanding from a design perspective, and a slightly different understanding from a management perspective. Design management (DM) is truly situated in the middle of the intersection of design and management, drawing on practice and theories from both sides. Both design thinking and design management relate more to general management theories than service management theories; however, I depict them on the "design" side of the figure because my perspective draws on the design literature. Service-Dominant logic (S-D logic), the last research stream marked out, is a rather recent development within service marketing /management research that regards service as a perspective on value creation. User involvement is treated in several of these research streams, so users are therefore marked as an overlapping area. Below I present the key areas

of this licentiate thesis: design research, service design, and service marketing/management.

Design Research

Traditionally, design can be understood as product, as process, and as practice. In the context of this thesis design is mainly discussed as practice; however, I do this in relation to the changing character of the design product and the implications for design practice.

In Simon's seminal book, *The Science of the Artificial,* design was defined as, "design is the transformation of existing conditions into preferred ones" (Simon, 1996:111). Although about to be the starting point for design research in its own right, the broad definition also caused problems. The critique has mainly been related to Simon's positivistic heritage, considered to be incompatible with the more organic ways in which designers actually work (Dorst & Dijkhuis, 1995). Instead, Schön (1983) proposed a more interpretive understanding of design practice as reflection-in-action. In addition, design as meaning creation and designers as interpreters of meaning have developed as a direction of understanding (Krippendorff, 1989; Press & Cooper, 2003; Verganti, 2008).

The designer's empathy with users and user-centered approaches are often brought forward as central in design practice (Kelley, 2001; Norman, 1998). Although Verganti (2008) builds on the understanding of design as meaning creation, he distances himself from Krippendorff's (2006) closeness to human centered design. Instead, in the concept of design-driven innovation Verganti (2008) argues that designers should not be close to the users, but propose new meanings.

I am primarily interested in design as a professional practice and how this relates to the management discourse. This relation is to some extent treated within the discourse of design management. A part of this literature treats the effective management of design, see for example Borja de Mozota, (2003), Veryzer & Borja de Mozota (2005) and Walsh, Roy, Bruce & Potter (1992), but there is also another more critical stream focusing on the relationship and intersection of design and management (Johansson & Woodilla, 2008b; Rylander, 2009a; Sebastian, 2005).

Since my experience as design manager in the early years of the millennium, there has been a veritable explosion of literature arguing the benefits of de-

sign thinking for innovation and organizations. Some has been published in academic journals and reviews (Boland, Collopy, Lyytinen, & Yoo, 2008; Jelinek, Romme, & Boland, 2008) but to a large extent they are accounts of practitioner success stories (e.g., T. Brown, 2008; Kelley, 2001) and in 2009 three of the proponents each released a book on the subject (T. Brown, 2009; Lockwood, 2009; Martin, 2009). However, the notion of design thinking differs in the design and management discourses (Johansson & Woodilla, 2010). In the more recent management notion of design thinking one common theme is the possible transferability of design skills, tools and mindset to other disciplines and into organizations. The highlighted benefits are the user-centeredness and the multidisciplinary team approach (T. Brown & Katz, 2011), abductive thinking' (Kolko, 2010) and strength in using a variety of visualization skills (Buxton, 2007). This recent literature can be contrasted to some extent with the more academic discourse of design where the character of designers' knowledge and skills has been a topic since the late 1960's (e.g., Alexander, 1964; Cross, 2007), building on conceptualization of different design disciplines.

As design practice has developed there has been a change in what is being designed, or "design as product", although I prefer to regard it as the "design object". An increased interest in design for interactions and systems has emerged from graphical representations, communications, objects for pleasure and utility in industrial design. Until recently these design practices have mainly been related to digital media and products, but there is an increasing focus on organizations, networks and societal issues (Buchanan, 2001; Press & Cooper, 2003). In line with this expansion of the design object, yet a new practice in design has emerged called service design.

Service design

Although awareness of the impact of design on business success is quite well documented for industry, it is much less so for service companies, where only 6 % of service companies see any role for the design at all (Mager, 2009). This is changing rapidly, starting in the late 1990's and with an enormous growth in activity during the 2000's; now service design attracts increasing attention both from academia and practitioners (Miettinen & Koivisto, 2009; Sangiorgi, 2009). Practitioners have backgrounds in a variety of design practices, with interaction design, graphic design and industrial design being the most common. How-

ever, research is mainly conducted from within an interaction design tradition (Holmlid, 2009b; Pacenti & Sangiorgi, 2010).

The European service design community consists of closely connected practitioners and researchers where blogs, web based networks, and Twitter streams create rapid, open and dynamic forms of sharing. However, these accounts tend to be neither lasting nor peer reviewed, as favored by the academic community. Some discussions are on whether there is reason to develop yet a new design discipline and rather see it as a perspective in all design activity (Kimbell, 2010b); others claim service design has distinct characteristics, while admitting difficulty in defining the practice (Stickdorn, 2010).

As mentioned earlier, user centeredness was claimed to be fundamental in design processes and rhetoric. In service design users and stakeholders are brought straight into the development through co-creational practices and inclusion of participatory design approaches. Since their development in the 1970's, these practices have mostly been known and used within the HCI (Human Computer Interaction) design area (Holmlid, 2009b). Previously services had been both developed and designed, but supposedly not with a design perspective as foundation.

The development of a service design discourse has mainly been driven by reflection on what practitioners do, and there is a noted lack of theoretical development (Sangiorgi, 2009). Segelström and Holmlid argue *"research regarding design with a service perspective as well as services with a design perspective has been scarce."* (Segelström & Holmlid, 2009:1). Further an overview of interdisciplinary service research priorities places 'enhancing and stimulating service design and service innovation' as second out of the 10 priorities for service research at large (Ostrom, Bitner, Brown, S., Burkhard, Goul, et al., 2010). The same overview points out the explicit relation of service design practice with service management and marketing functions.

Service Marketing/management

It has been stated over and over during the past decades that the service economy is growing, both regarding employment and in revenue figures (e.g., S. Brown, Fisk, & Bitner, 1994; J. L. Heskett, 1986; Spohrer & Maglio, 2008), with frequently cited statistics such as service representing about 70 percent, or even 90 percent in Hong Kong (Mager, 2009), of gross domestic product in the

developed nations. This development has been reflected in increased interdisciplinary service research (Ostrom, et al., 2010).

The service marketing and management area grew out of a realization that service marketing differed in many ways from the traditional marketing of products (Shostack, 1977). Following this insight, research emerged that established services and service research in relation to products (Zeithaml, Parasuraman, & Berry, 1985). However, some 20 years later Vargo and Lusch, (2004, 2008a) proposed an alternative view. Instead of separating products and services they regarded service as a perspective on value creation and proposed a new logic – Service-Dominant logic – meaning that we as users integrate our knowledge and capabilities with those from the firm (both peoples and artifacts) in co-creation of value. This understanding of service changed the conceptual position of the customer from being a 'passive' consumer and answerer of questionnaires to an active co-creator of value. It also breaks the formerly well-accepted sequential value chain perspective and enhances the understanding of value created in value constellations (Normann & Ramirez, 1993). At the same time, requirements of how to involve users in the development process change when the user/customer becomes an active co-creator of value (Ostrom, et al., 2010). However, Service-Dominant logic is highly conceptual, lacking the tools and methods for how to realize these features in practice. The focus has been on discussing where and how value is created, with very little consideration of questions like how to understand and involve people in accordance with this value perspective.

From a design point of view, the increased focus on the role of the customers, understanding their context and in what ways they should and could be involved is intriguing. First, these questions have been, and still are, central in design practice and in large areas in design research. Second positioning users at the core of value creation potentially opens up space for a more central positioning of design practice competence, with claims that designers are experts on the integration of users' perspectives.

STRUCTURE AND SCOPE OF LICENTIATE THESIS

In this licentiate thesis I take as the starting point my own design practice experience as exemplified at the beginning of this chapter. Questions that troubled me in my work as designer/design manager have continued to be drivers for

where my curiosity has taken me during the first years of my research. I can describe it like an initial itching, the first feeling that there might be some kind of mystery involved, as Alvesson & Kärreman (2007) view the beginning of the research process.

There are two "mysteries" that have been lingering in this context of service design and service management. One is related to the changing nature of design practice: what happens, and what are the implications for industrial design practice when service, rather than artifacts, is the objective of the design. The second is the increased emphasis in the literature on the user/customer's role in the value creation and realization of service. I suspect that there is a potential tension when the different perspectives of users in service management and design discourses meet in the common agenda of service design.

This licentiate thesis is a *compilation of papers,* it contains two published papers (*Paper I:* Comparing Design Thinking with Service-Dominant logic, and *Paper II:* The Meander Model – a metaphor for user involvement in service design) and a body of text (the Kappa) developed to situate the two papers in a broader context. As the first part in a full PhD project, I have chosen to establish a theoretical foundation for the empirical exploration that will follow in the next phase. The first mystery as stated above can only be briefly touched without conducting in-depth empirical studies. *Paper II* contains the only empirical work in this thesis, and methods and so on are only discussed within that paper. In this Kappa I take a conceptual approach and focus on discussing the tensions of service design and service management as described in literature.

Purpose and research questions

The overall purpose of this thesis is to contribute to academic knowledge about the emerging design practice concerned with the design of service. There are four research questions that are treated both in the individual papers and in the theoretical framework developed in the Kappa:

1) How can the relation be described between the two concepts, design thinking in the design discourse and Service-Dominant logic in the service management discourse?

This relation is explored in *Paper I,* and the underlying concepts of design thinking and Service-Dominant logic are presented in more detail below in sections *Design thinking* (pp. 41-45) and *What does a Service-Dominant logic perspective mean?* (pp. 50-53).

2) In what ways are the involvement of users and customers conceptualized in service design and service management respectively?

3) In what ways are co-creation described and understood in service design and service marketing/management discourses respectively?

The gaps identified in the above mentioned sections are explored below in the Chapter 6; *User involvement in service design and service management* (pp. 73-83). Research question number three is also partly explored in *Paper II*, and further treated in Chapter 8: Contributions and discussion (pp. 97-103).

4) How to reconcile Verganti's notion of design as meaning-creating activity in design-driven innovation with a service design perspective that puts the user in the center?

The fourth research question is explored in *Paper II*. The theories underlying this work are discussed in depth below in Chapter 3, in the sections on *Service innovation* (p. 53-55) and in Chapter 5: *User involvement in service design and management* (pp. 73-83).

LAYOUT OF THE THESIS

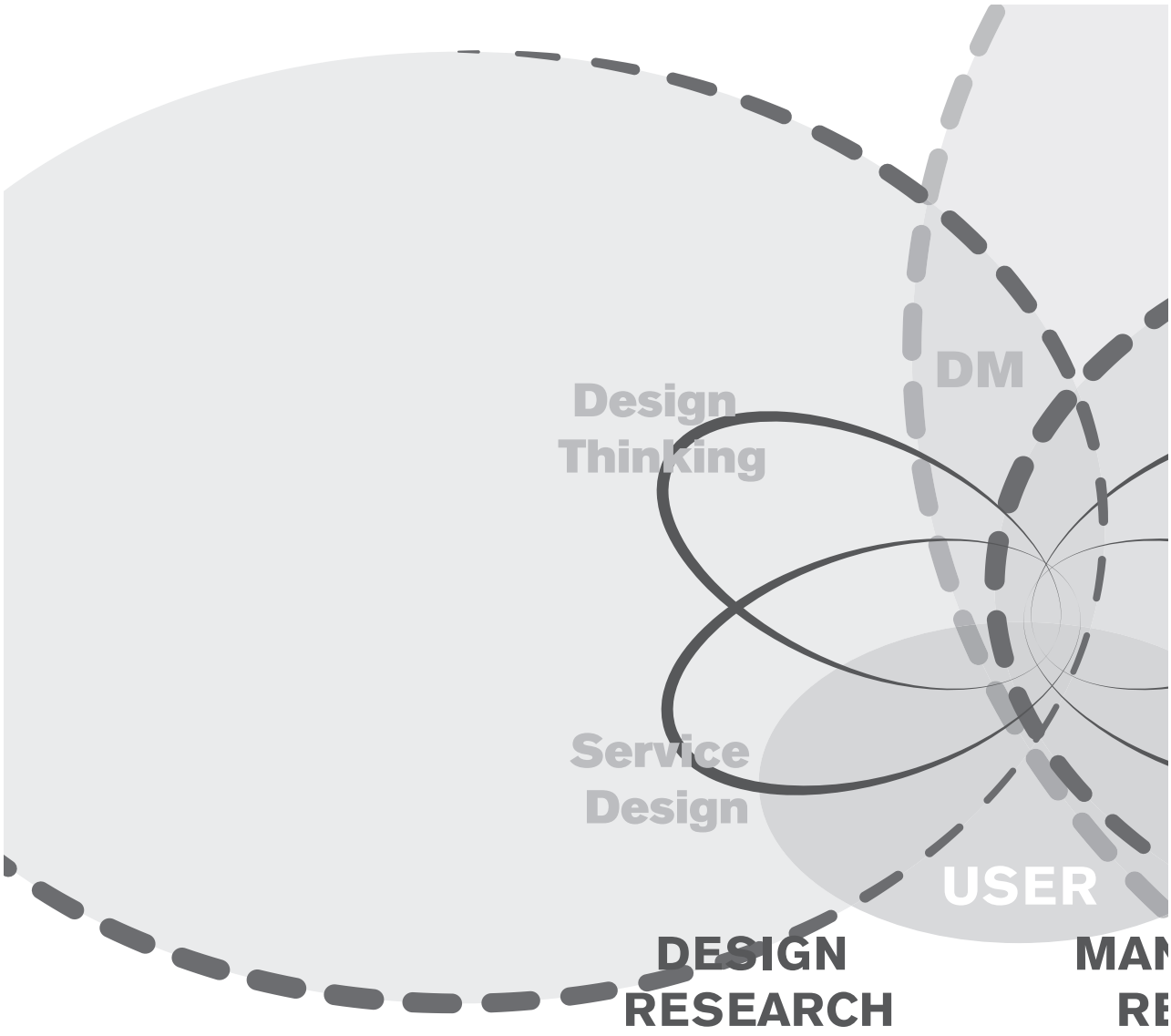
Following this first introductory chapter, the main body of work is presented in a set of five chapters covering the theoretical landscape where I have found my points of reference.

In CHAPTER 2: Design and design practice, CHAPTER 3 The design management area, and CHAPTER 4: Service marketing/management, I present these research areas and position myself in relation to the literature.

The following two chapters, CHAPTER 5: Service design and CHAPTER 6: User involvement in service management and service marketing, have a slightly different character. I first present the respective bodies of literature, then proceed to synthesize and develop key concepts by proposing characteristics and relations found in the reviewed literature.

CHAPTER 7 presents the appended papers and their relation, and discusses the development of the research questions.

CHAPTER 8, the final chapter, contains contributions and discussion.


DM
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USER
DESIGN
RESEARCH
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CHAPTER 2

Design and design practice

Being able to add up your grocery bill does not make you a mathematician. Likewise, decorating your home does not make you a designer. (Buxton, 2007:103)

This chapter begins with a brief overview of how I trace my understanding of design as a design practice from the writings of the major theorists in the design field. This is not intended to be a history of design and design practice; rather, it is an attempt to situate myself, and my interpretations within the overall field. Thereafter I discuss the changing design object and how design practice is described. I then return to my understanding of design and the chapter ends with a summary.

THE MEANINGS OF DESIGN

Design - a word with many uses and connotations, used intentionally in a variety of ways, misused in at least as many.

In general there are three different ways that the concept of design is commonly used: as product, as process, and as practice. The sentence "The designer designed a designed design"[4] is perfectly valid, but does not make it easier to understand this multi-faceted concept.

There is a wide range of definitions. Friedman argues that they share three attributes: Firstly, the word refers to a process. Secondly, this process is goal oriented. Third, the goal of design is solving problems, meeting needs, improving situations, or creating something new or useful (Friedman, 2003:508). This understanding of design relies on Simon's widely used and accepted definition of design: "design is the transformation of existing conditions into preferred ones" (Simon, 1996:111), relating design to what people do when they exercise the general human ability to conceive, create, and change the course of action. Simon further understands design as a purposeful problem solving activity,

4. Design can also be used as an adjective – Look a designed chair!

design problems being defined as ill-structured (for more reading on Simon and well- and ill-structured problems, see Simon, (1973)).

In his book, *The Sciences of the Artificial,* Simon (1996) set the stage for a 'science of design', a science of the man made in its own right. Following these thoughts, in the 1960's there was a strong interest in methods and descriptions of the design process, also called the design methods movement (Bayazit, 2004; Cross, 2007). Attempts were made to make the design process as predictable as possible, and diagrams and flow charts were drawn of how the design process should be conducted.

However, discrepancies were found between the descriptions of design processes and what designers actually did. Alexander later rejected the normative design methods movement that grew out of Alexander's then-seminal book on methods and processes of designing. In the preface of the 1970 paper back edition of his book, *Notes on the synthesis of form*, (Alexander, 1964), he instead emphasized the diagrams and the patterns that emerged out of the process described as the most important. "If you understand the need to create independent diagrams, which resolve, or solve, *systems of interacting human forces*, you will find that you can create, and develop, these diagrams piecemeal, one at a time, in the most natural way, *out of your experience of buildings and design, simply by thinking about the forces which occur there and the conflicts between these forces.*" (My emphasis). For me this shows a direction towards an interest and focus on the situation faced and a less rationalistic view of the design process and practice.

Dorst (2006) discussed the problematic of framing design as a problem-solving activity at all, regardless of whether there is a well or ill-structured problem. Arguing such framing relies on a rationalistic understanding that there is a problem to be solved and how this should be solved. Instead, Dorst considered the importance of the situation that is brought forward, saying here is a need for a subjective understanding of and in a particular situation. This view was explored earlier in the work of Winograd and Flores (1987).

However, another perspective has evolved from Schön who studied the relation between architecture students, teachers and their interactions in teaching situations (Schön, 1985). He reported on how the visualizations and discussions following them were integrated in the mutual development of the design situation at hand. Schön found that the design process and the interaction between students and teachers could not be described as result of rational problem solving process. Instead, the designs developed through the interaction with the

design material, sketches, and reflections on what these sketches meant. This was framed as *reflection-in-action,* described as the designer's reflective conversation with the situation (Schön, 1983).

Design was established in the 1980s as a discipline being studied on its own terms, meaning with its own rigorous culture, based on reflective practice of designing argued Cross (2007). Both Lawson (1980/2004) and Rowe (1987) have backgrounds in architecture, however they both published books during this decade that have become important in understanding of how designers think, based on a practice perspective.

So, seeing design as reflection-in-action in an interpretative tradition, contradicts design as the rational goal oriented problem-solving process suggested in the definition by Friedman (2003). Dorst and Dijkhuis (1995) concluded that these different paradigms might be complementary for describing different kinds of design practices. This means that adopting a problem solving approach might be more appropriate when the situations at hand are more clear cut, whereas describing design activity as reflection-in-action is more appropriate in the conceptual stages of design work "where the designer has no standard strategies to follow and is proposing and trying out problem/ solution structures" (ibid.,:274.).

Within the interpretative tradition, Krippendorff (1989) proposed that design is "making sense (of things)". This was further developed by Verganti (2008), who emphasized meaning-making in relation to innovation. Press and Cooper (2003) also described the designer as a maker that makes meaning possible, encompassing the crafting of solutions. In effect, they argue, the designer is a cultural intermediary.

In the context of this thesis, design practice has a purpose and is situated within some kind of business context, such as in industrial design, which is my own background. The context of design has changed dramatically since the early design methods movement, as well as what is considered to be the object of design. The more recent understanding of design as meaning creating activity becomes highly relevant in these changing settings of design.

THE CHANGING CHARACTER OF THE DESIGN OBJECT

Much discussion has been going on in recent years about the transformation of design and design practice. In effect the industrial design practice has always been exploring new territories. Valtonen (2007) described how the Finnish industrial design developed through the decades. The practice has taken on an increasingly large scope, from giving form to shaping strategies. In the beginning, the focus was on products for everyday use, with increasing demands for mass-production and industrialization. Later ergonomic concerns and knowledge about construction and materials became key. In the 1980's mass consumption, corporate identity and then in the 1990's branding and strategy become the interests for the same design practice (ibid.).

In sum, Valtonen argued, industrial design has taken on an increasingly larger scope; not as the output of individual designers but as a practice that claims to be relevant for more and more new areas.

Buchanan (1992, 2001), structured design in four orders, see Figure 2. He related these orders to what is being designed, and also saw and discussed the orders as a placement for design, or places of interventions where problems and

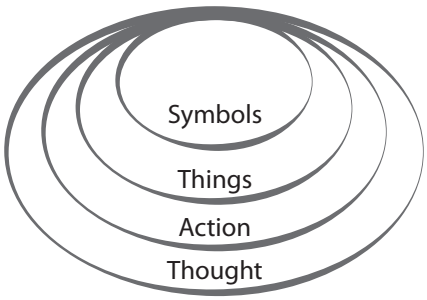


Figure 2. The four orders of design, my interpretation, adapted from Buchanan (2001)

solutions could be reconsidered. The four orders are: 1) symbols, 2) things, 3) action and 4) thought. These orders roughly correspond to design disciplines, but they all have expanded and developed through the years. The first order relates to the design discipline of graphic design, but has expanded from typography and print production, to include communication through film, television

and new media. The 'things' or the design of material objects includes traditional concerns related to material, production and shape but has expanded into "…diverse interpretation of physical, psychological, social and cultural relationships between products and human beings." (Buchanan, 1992:9). Symbols and things are the focus of design in the 20th century argues Buchanan, "unless these become parts of living experience of the human being, […] they have no significant value or meaning" (2001:11), it is the relationship between the symbols, artifacts and human beings that is the focus of the third order of design - action. Interaction design is the design discipline that is maybe most thought of in this area, interested in the interaction between human beings, mediated through objects. The last and fourth order of design focuses on environments and systems. The emphasis is in human systems and integration of information, physical artifacts and interactions, according to Buchanan.

> "By definition, a system is the totality of all that is contained, has been contained, and may yet be contained within it. We can never see or experience this totality. We can only experience our personal pathway through a system. And in our effort to navigate the systems and environments that affect our lives, we create symbols or representations that attempt to express the idea or thought that is the organizing principle. The idea or thought that organizes a system or environment is the focus of the fourth order design." (Buchanan, 2001:12, My emphasis).

Similarly, Kimbell (2010b) argued that in design for service the relations between things and actors within systems are the focus of the design activity, rather than the objects themselves. This is in coherence with the 4th order of design (Buchanan, 1992, 2001).

Design at this level of complexity was only suggested by Buchanan, but is now starting to be realized when design is introduced for changing public policy (e.g. Miller, Rudnick, Kimbell, & Philipsen, 2010) and the redesign of public services and health systems (e.g. Burns, Cottam, Vanstone, & Winhall, 2006; Parker & Heapy, 2006). This area is increasingly labeled transformation design, where the aim is lasting and ongoing (behavioral) change within the organization and/or community and its stakeholders. Sangiorgi (2010:8) argues: "Adding the adjective 'transformative' to Design for Services requires therefore a reflection, not only on how designers can conduct transformative processes, but also on which transformations we are aiming to, why, and in particular for the benefit of whom."

However, in this transition it is important to understand what there is to design. Segelström and Holmlid (2009) argued that the service designers see their "design object as events and performances in interaction and co-creation between humans, supported by other means." Redström (2006) argued that there is a tendency to shift from object to users as the subject for the design. User-centered design risks becoming 'user design' where the process in which people turns into users is in focus – how use and users should turn out. In experience design and service design there is rhetoric to design the users experiences, which Redström (ibid.) argued is not there for the designers to design.

CHARACTERISTICS OF DESIGN PRACTICE

The traditional design practice has been described through the tools, methods and approaches practiced. In the description of current design practice the focus on processes and tools still seem to be dominant.

Press and Cooper (2003) distinguish between the *act* of designing and the *process* of designing. The act of designing demands skills in knowing how to: manipulate different material and visualize in relevant material. The process of designing demands a broad variety of process-related skills such as in research, to be able to deconstruct, synthesize, create and communicate through various means and forms. But it also requires personal attributes such as being intuitive, sensitive, and holistic and to be both convergent and divergent. In addition, empathy with users and different methods of capturing users experiences through prototyping or other means are needed. (Buxton, 2007; Kelley, 2001; Press & Cooper, 2003).

Iterative processes between the whole/the detail and practice/theory are often mentioned as characteristics of design practice (e.g., Edeholt, 2004; Rosell, 1990; Rowe, 1987). The co-evolution of the solution and problem space is one concept for describing how designers move between these different modes in iterative processes (Dorst & Cross, 2001). This has also been framed as an abductive process (Kolko, 2010, Dunne & Martin 2006). The process requires a conjunctive mindset, which means aiming for what ought to be, and embracing the idea of a multitude of possible solutions (Cross, 2006; Edeholt, 2004). Additional sources identify different kinds of visual thinking, and presentation skills used to describe a multitude of possible futures as especially important (T. Brown, 2008; Lawson, 1980/2004; Rosell, 1990).

In the book *Designerly ways of knowing*, Cross (2006) presents a broad overview of empirical studies of design activity. Cross proposes design cognition to span over three major areas (2006:114-116): 1) problem formulation, 2) solution generation and 3) process strategy, meaning the way designers handle their way towards a good solution. There is a strong relation to the idea of design as problem solving. However, Cross identifies differences in expertise as one factor in how different designers go about their design task. He also argues for sketching to be the key skill in design cognition, specifically for solution generation.

Although the skills and attributes mentioned above are clearly relevant in the changing setting for design, there are surely other aspects of design practice that will become more prominent with increasing interdisciplinary teams and complexity. Reflecting on the UK Research Initiative Design for the 21st Century, Tom Inns proposes 6 emergent roles for the designers, as a "flavor of where the designer might be heading" (Inns, 2007:24). These roles are somewhat overlapping with the characteristics mentioned above, but the mediator and facilitator roles are emphasized. These emergent roles are 1) negotiator of value, 2) facilitator of thinking 3) as visualizer of the intangible, 4) as navigator of complexity, 5) mediator of stakeholders and 6) as coordinator of exploration.

From this discussion it is possible to conclude that design practice is multifaceted and often seems to consist of contradicting features. An approach that functions well in one situation doesn't work in another. A strategy that is advisable when in education or a novice is not applicable or relevant when seniority and excellence has been achieved, as in the case in many professional practices.

REFLECTING ON DESIGN AGAIN

This thesis explores the emerging service design practice from a perspective of industrial design practice. Holmlid (2007) compares service design and interaction design (using a framework developed by Edeholt and Löwgren (2003) for comparing industrial design and interaction design), and finds that industrial design and service design both have explorative processes and an interest in physical production. However, he argues that service design production is virtual and ongoing, and the representations are enactive and symbolic. This adds temporal and social dimensions that industrial design practice at large not traditionally deal with. Service development and service design is thus concerned with a multitude of situations that are difficult to define and control. In

addition the design object in service, is co-created with the users of the service in the service encounter.

This brings back the discussion on how to understand design practice, as a problem solving activity, as a reflective practice, or as a meaning creating practice. Of course there are no clear-cut barriers between these three. There will always be parts of the process that involve problem solving, of both well- and ill-structured problems. Nonetheless, to me it seems suitable to pursue the concept of design practice as situated and as reflection-in-action, however with an increased emphases on meaning creation.

I agree that if seeing design as 'making sense' in general as Krippendorff (2006) proposes then all human activity involves design in one way or another. Design seen as any type of activity or any person's skills of changing their situation at hand is a broad perspective on design. I am specifically interested of how designers, these people that made the activity of designing their profession, make sense of their professional practice and how that activity is described in literature. Like Krippendorff (2006:31) says: "Design publicly acknowledged competencies, the use of methods, but above all on an organized way of languaging, a design discourse, that coordinates working in teams and with clients, justifies proposals for artifacts to their stakeholders, and distinguishes professional designers from those doing it largely for themselves."

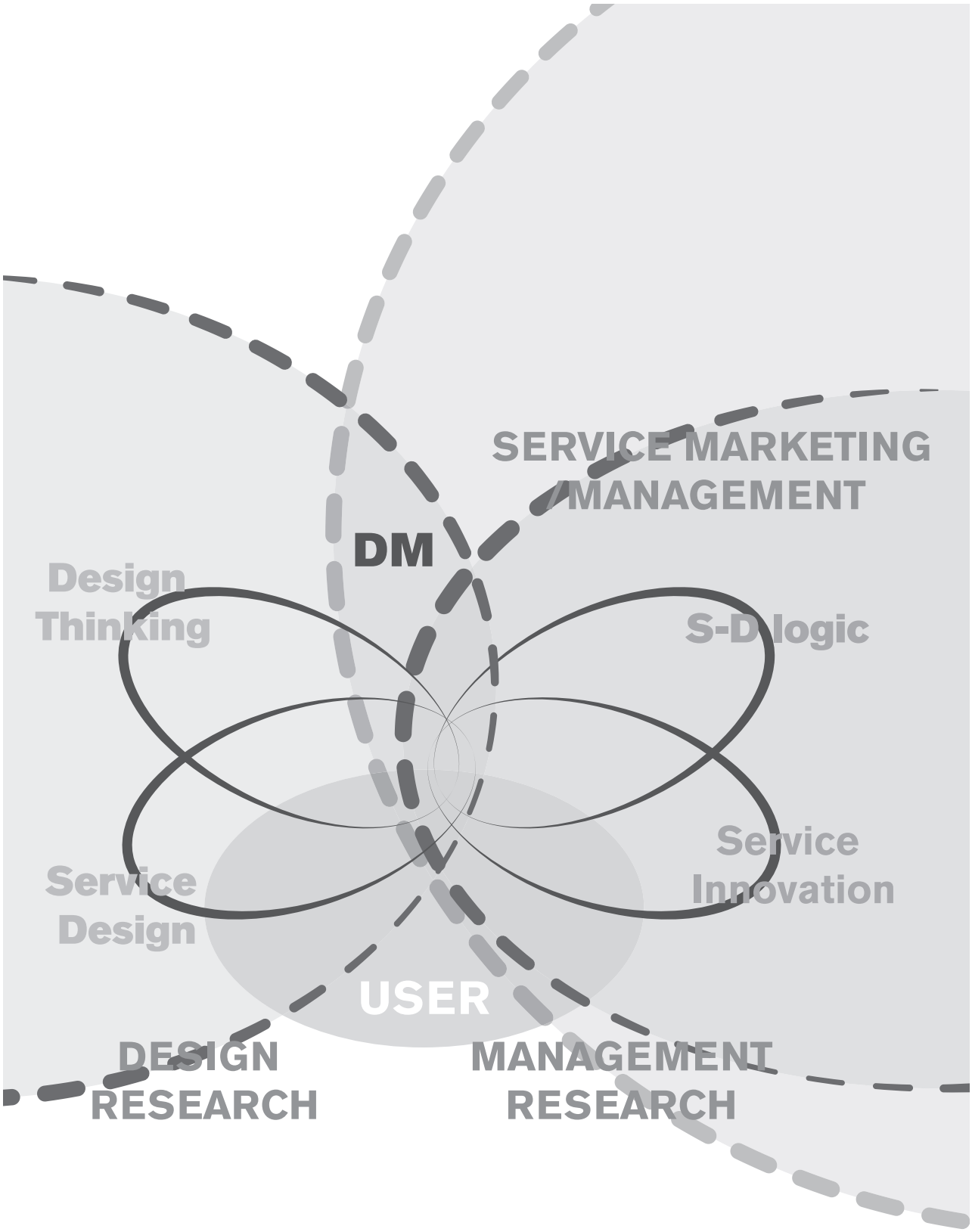
SUMMARY

In this chapter I discussed my understandings of design and design practice as situated and a meaning-creating activity by relating to some important theorists in design research. The character of the design object was related to Buchanan's four orders of design, and I noted the increasingly complex situations in which design practice acts, for example, as being a part of or even a driver of societal change.

The characteristics of design practice as described in the literature were discussed in relation to this increased complexity. One aspect in the literature is an increasing focus on the roles that designers take as facilitators or mediators, while maintaining strong visualization and other design skills.

In the final section I returned to discuss design as meaning creating activity. Putting meaning creation rather than the problem solving as central in design practice relates well to complexities faced in the design of service.

So far I have discussed concepts of design and design practice as if (isolated) in a design studio, whereas in practice much design work takes place within, or in close relationship to, business organizations, where there is an overlay of "managing" the design process. Therefore, in the following section I will discuss research that treats relations between design and management.


SERVICE MARKETING
MANAGEMENT
DM
Design
Thinking
S-D logic
Service
Innovation
Service
Design
USER
DESIGN
RESEARCH
MANAGEMENT
RESEARCH

CHAPTER 3

The design management area

In this section I describe the development of the design management area through a short historical overview. I continue by discussing the different research interest that have been dominant, with a short note on how the design management practice has developed and research that followed. After presenting three contemporary research streams, the chapter ends with a summary.

SHORT HISTORICAL TRACING

The starting point of design management as a practice in a modern industrial context can be referred back to Peter Behrens, trained as architect and working for AEG in the early years of the 19th century. He became known as the first industrial designer, and developed an entire "corporate identity program" where logotypes, products, and communication were coordinated with each other. Also, as far back as the 1930's Olivetti typewriters were well known for their coherent corporate design and for using designers to take part in corporate decisions, and their competitor IBM followed this practice in the 1950's (e.g., J. Heskett, 2006; Johansson & Svengren Holm, 2008a; Lorenz, 1986).

In these early years the practice was more about aesthetic management rather than the work processes. The designers, sometimes called *hero designers*, took the role of the master, working in isolation from other functions. However, with the development of industry, designers in an industrial context increasingly worked together with other competencies, specifically engineers and marketers. During the 1960's and 1970's this led to an emphasis in practice of how to integrate and manage design competence with other competencies, and design processes with other processes. Soon different types of problems and issues occurred. Designers wanted to be integrated early in the process to avoid 'styling', while engineers preferred to allow them in at the end of the process. Difficulties arose in defining who had the responsibility for taking aesthetic decisions: there are anecdotes telling that the CEO's wife decided color and shape, or the color of the tie he wore that day guided the decisions. The role of someone who managed

and took responsibility for these activities emerged, the design manager. However, there was still a need to spread knowledge about design and the effects of the same. The Design Management Institute was founded in USA in 1975 with the stated mission to spread and build knowledge about design management through seminars, conferences and case studies.

Academic interest in design management began with the first international research project, the TRIAD, initiated by Design Management Institute and Harvard Business School in 1989, that resulted in a set of case studies and involved scholars such as John Heskett, Karen Freeze and Angela Dumas[4]. Lisbeth Svengren Holm took part in the project and her dissertation (Svengren, 1995), the first Swedish dissertation in design management (and second in the world), built partly on cases from the TRIAD project. The first issue of Design Management Review[5], a professional magazine uniquely focused on design management, was published the same year. The first academic courses in design management took place in the U.K. in the late 1970's (Johansson & Svengren, 2008b). However, it was another 21 years before the first issue of an academic journal, Design Management Journal, was published in 2000.

In the 1980's a *business perspective* emerged with an awareness and interest in design as a strategic tool (Kotler & Rath, 1984) and the concept of silent designers, meaning people with large influence in the design process but with no formal training and/or awareness of their importance, was coined (Gorb & Dumas, 1987). Initial studies were made on the integration of design and other functions in companies (Dumas & Mintzberg, 1989). Findings included problematic relationships between R&D and marketing functions (Souder, 1988), and differences were identified between design management in manufacturing and service companies (Dumas & Whitfield, 1989).

The relation between design and strategy was further developed in the 1990's and continued into the 2000's, building on assumptions that design was underused as a competitive resource and that there was a lack of sufficient integration.

4. Personal communication with Lisbeth Svengren Holm 2011-08-09
5. The history of DMI publications is somewhat complex. The quarterly DMI Review was first known under the name Design Management Journal until the start of 2004. The annual publication as the Design Management Journal was known as the DMI Academic Review until 2004. There were only two issues published during this period; one in 2000 and one in 2002.

Several books were published on the subject, bringing forward the importance of building alliances (Bamford, Gomes-Casseres, & Robinson, 2003; Bruce & Jevnaker, 1998) and connections to corporate strategy (Blaich, 1993). In the textbook *"The Design Agenda",* Cooper and Press (1994) suggested design was active on strategic, tactical and operational levels in a company.

In order to achieve the benefits of design at strategic level and as strategic resource Svengren (1995) suggested integration on three levels, as functional, visual and conceptual integration. Jevnaker (2000) also stressed the importance of integration of competences and put emphasis on a dynamic rather than linear process; she added relationship building and the importance of repeated design investments as key for suffusing a company with design. This suffusion relates to the preferred way of design integration, called infusion, suggested by Dumas and Mintzberg (1989). Other elements found in Dumas and Mintzberg's empirical study were champion, policy, program and function, while other research made connections for structuring design management in line with Porter's value chain (Borja de Mozota, 1998). Further research recommended that design managers know and understand corporate strategy and communicate about design's value using performance measurements (Hertenstein & Platt, 1997). In addition, Liedtka (2000) argued for seeing strategy making as a design process, claiming they both are synthetic, adductive, hypothesis-driven, opportunistic dialectical, inquiring and value-driven. Connecting design and strategy in this way relates more to how design is discussed in the later design thinking discourse than to the design-strategy discussion at the time. A more detailed description in Swedish of the different streams within design and strategy research can be found in the writings of Ulla Johansson and Lisbeth Svengren Holm (2008a; Svengren Holm & Johansson, 2007).

Furthermore, in the 1990's and continuing in the 2000's, different European design councils completed many reports and investigations exploring design and business. Most notable was the British Design Council and its publications. Some examples are, *The Impact of Design on Stock Market Performance* 1994-2004 (Design Council, 2004), and periodical surveys and publications of the use of design in Britain from 2001-2008, which can all be found at their web page www.designcouncil.org.uk; they continue to conduct surveys of the design industry as such (Design Council, 2010). In Denmark the Danish Design Centre conducted a survey of the use of design in Danish companies (Danish Design Centre, 2003) and developed a design ladder for discussing the design maturity in different companies and hence their use of design. This design

ladder has also been used by the Swedish Industrial Design Foundation (SVID, 2004), and similar investigations have been made in Sweden, reporting on attitudes to design use in Swedish industry (Detrell, 1990; Nielsén, 2008; SVID, 2004). There were also a few research articles treating design use and business success (Gemser & Leenders, 2001; Hertenstein, Platt, & Veryzer, 2005; Walsh, 1992), confirming a positive relationship.

The above mentioned research in design and strategy, the integration of design in organizations, and the various reports and investigations shapes the understanding of design's role in companies and forms an executive perspective. The dominant assumptions are that design is difficult to manage, and that companies with their different functions and management need to learn more about design in order to be able to take advantaged of the competitive advantage. In all these discussions, it is a fundamental assumption that design and design management are beneficial for company performance. Since the turn of the millennium the design and strategy stream has remained intact and continues to be further developed.

In addition, there has been growing interest in two different ways of exploring other aspects of the relation of design and management. The main stream of design management research continues to be interested in how to integrate and manage design functions in organizations. A smaller but growing stream is interested in the intersection of design and management, rather than the management of design. These two perspectives will be examined below. Furthermore, three research areas situated within the latter perspective can be distinguished, design thinking, service design, and design and innovation; all three will be discussed in more detail. However, I first discuss the two different perspectives in design management research, design management as the management of design, followed by design management as the intersection of design and management.

DESIGN MANAGEMENT AS THE MANAGEMENT OF DESIGN (PROJECTS AND PROCESSES)

Cooper and Press stated in *The Design Agenda* "Design management 'is the application of the process of management to the processes of innovation and design.'" (Cooper & Press, 1994:3).

One rather common understanding is that design management is a matter of leading and managing design projects and processes: in practice this is what

design management is about. This was the nature of my work when I held a design manager position: Initiating and leading design projects, appointing designers, coordinating design processes, and making design decisions in the organization of which I was a part.

The application of management processes to design processes has been explored in several studies. All these imply a top down perspective where design is connected to – and integrated into – well known theories of management and marketing. Examples are the above mentioned coupling with Porter's value chain (Borja de Mozota, 1998) and in relation to the marketing mix of the 4 P's (e.g., Borja de Mozota, 2006). In addition, design management research has related design processes to defined concepts in the management discourse for the purpose of generating theoretical frameworks, such as the balance score card concept (Borja de Mozota, 2007), or the framework developed by Sun, Williams & Evans (2011) using Porter's Five Forces theory.

Other studies have looked at the role of the design manager. Press and Cooper (2003) developed an empirically-based typology, proposing that the design manager worked as: 1) creative team manager, 2) design procurement manager, 3) account manager, and 4) marketing manager. In addition the authors suggested a fifth role as a process manager. Which role(s) the design manager takes or can take is also related to how the company has organized for design functions in the organization (Veryzer, 2005) and the competencies of the individual designers (Perks, Cooper, & Jones, 2005). Perks et al., (ibid.) discussed design in three roles, as 1) functional specialism, 2) part of a multifunctional team and 3) leader of the new product development process. There are studies discussing the second role, the designers' role in these multifunctional teams, which focus on communication and collaboration within the teams (e.g., Kleinsmann & Valkenburg, 2008; Persson, Karlsson, & Rohlin, 2007; Stempfle & Badke-Schaub, 2002). When in the management role, as leader of team or process, there is an pronounced demand for management skills; Perks et al. (2005) found that designers in this role challenged marketing and technology assumptions made by other functions. Carlgren (2009) also highlighted challenges related to different professional cultures involved, including where the design function is positioned within the company.

Many textbooks aim to teach designers how to manage design projects and how to build design strategies (Best, 2006; Borja de Mozota, 2003; von Stamm, 2003), buy they also exist to teach other functions about design. For example, Bruce and Cooper (1997) argue that the marketing and management side needs

to learn more about design. However, there are also writings in the HCI literature, directed towards the design managers, arguing they need to lift their eyes to see the larger picture and learn how to transfer the user's need to business people (Anderson, 2000; Ashley, 2007; Lindegaard, 2004).

However, the application of management tools and methods to the design process might not be as easy and straightforward as suggested in these textbooks and in the citation in the beginning of this section. Instead, the difficulties with design as a different culture is repeatedly mentioned, and my personal experience in the introduction can be considered as one example. Bluntly said, the mismatch between design as a creative/artistic practice and the business world became more noticeable in the interdisciplinary teamwork that increased in the 1990's and 2000's. The role of the designer changed from the hero designer to a team member or even manager of the other team members. To apply management processes to design processes there needs to be some kind of match between them, some kind of common ground that ties them together. How can this be understood?

DESIGN MANAGEMENT AS (PROBLEMATIZING) THE INTERSECTION OF DESIGN AND MANAGEMENT

Back in 1989 Dumas and Mintzberg wrote:

> Management implies order, control and guidance of people, processes and activities. Design also implies order, control and guidance, but of things, artifacts and images. Neither processes, however, is itself one of order, control or guidance. (Dumas & Mintzberg, 1989).

Although they highlighted the similarities in activities and how they were carried through, and acknowledged differences in outcome and the materials as a result of controlling and guiding, Dumas and Mintzberg did not continue to discuss the characteristics or the two perspectives. Instead they proposed five ways of *how to* manage the design process. However, exactly these similarities and differences have been the focus of the perspective of design management research that looks at the intersection of design and management rather than posing questions on *how to* manage design. Research that problematizes the intersection of design and management sheds light on the relation of these different discourses. Questions asked include: What are the epistemological foundations

and how can they be understood? What underlying assumptions are inherent in each? And what are the consequences of these differences?

Johansson and Woodilla (2008b) explored the paradigmatic roots of theories in management, design and design management by using Burrell and Morgan's analytic framework, with its four paradigms: radical humanist, radical structuralist, functionalist and interpretative. They found that while research in management/organization spreads over all four paradigms, the main body of research is situated within the functionalist paradigm. In contrast the main body of design research is placed within the radical humanist paradigm, in the opposite corner of the quadrant. Further, design management research is almost exclusively placed within the functionalist paradigm, as shown in Figure 3 below. This analysis draws attention to the diverging knowledge and thought domains of design and management research. It also suggests why design research theories have scarcely been influenced by design management research and vice versa: the theories do not attend to the same figures of thought and have therefore difficulties in enriching and connecting to one another. These different knowledge perspectives have been related to power structures and hierarchies within companies (Johansson & Woodilla, 2008a) and according to

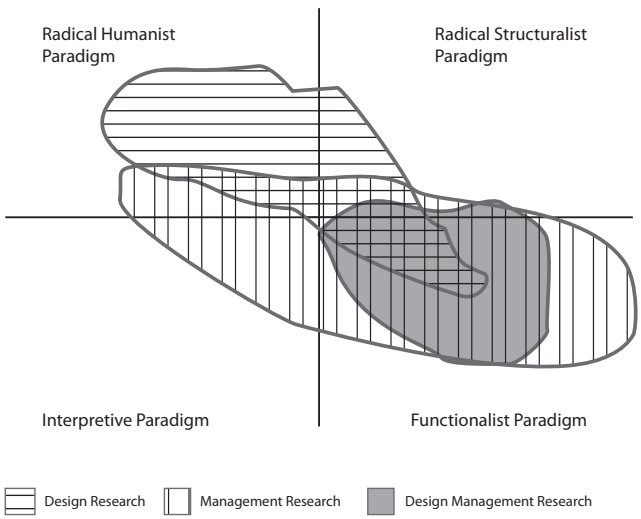


Figure 3. Paradigmatic overlap of Management, Design and Design Management. Adapted from (Johansson & Woodilla, 2008b).

these authors, designers' competence seem to relate better to less hierarchical structures.

Rylander (2009b) has further explored the epistemological underpinnings of design thinking/design firms and knowledge work. She argues they have fundamentally different approaches to problem solving: knowledge work resting on a rational analytic approach, versus design that rests on "an interpretive, emergent and explicitly embodied approach" (ibid.,:7). In so doing Rylander shows gaps but also potential for ways these two perspectives can complement and enrich each other.

In other studies that do not draw on epistemological underpinnings, Borja de Mozota (2007) described design and management as diverging forces, meaning that they strive in different directions, whereas Sebastian (2005) saw both design and management as purposeful activities aiming for the changing or making of new situations. Sebastian departed from commonalities instead of the differences between the two, arguing that both involve interpersonal relationships, and have the aim to develop something for people, or even the people themselves.

In more popular writings the underlying assumptions are often brought forward as stereotypes in each respective discourse (Liedtka, 2010; Martin, 2007). Martin (2007) argued that there is a fundamental conflict between the concept of reliability preferred by managers wanting to be able to predict the future, and validity preferred by designers. Designers focused on the actual use and its satisfaction. Liedtka (2010) presented different underlying assumptions such as design relying on subjective experiences and experimentation, favouring doing instead of planning, and making decisions based on emotions rather than logics. In contrast, she argued that the other side of the coin represented the business side. Both Liedtka and Martin suggested remedies for how these two partners can understand each other better by knowing more and acknowledging the different viewpoints of the world they both are aiming to change. In relation to the literature of the 1990's where it was the marketers and managers that should learn about design, the authors here give advice both to the designers and managers.

Looking at design management as the intersection of design and management reveals their different roots, and the study by Johansson and Woodilla (2008b) shows to what extent the design management literature relates to paradigms closer to management tradition than design tradition. This opens up a space for design management research connecting to a more designerly epistemology.

This more critical approach to design management has occurred during the last ten years. In addition, during this time at least three different areas within design management research have emerged, all positioned in the intersection of design and management. From one perspective, these three areas could be seen as a progression of design awareness that exists simultaneously in any country and market (Cooper, Junginger, & Lockwood, 2009). They could also be understood as different placements of design (management) activity in line with Buchanan's four orders of design, without hierarchical classification.

The three areas are: 1) Design thinking – a renewed interest in designerly tools and methods for enhancing organizations innovation capabilities. 2) Design and innovation – coupling of design theories with technology and innovation management theories and last 3) Service design – an expansion of design practice to also include service, people and processes.

Design Thinking

Design thinking, including design methods, is suggested to be the third stage of design management, representing essential design awareness (Cooper, et al., 2009), directed towards change in society and organizations. This is closely connected to Buchanans' fourth order of design, *thought* or *environment* and relate to the development and broadening of design practice as discussed in the section on design above.

The book *The Art of Innovation* by IDEO manager Tom Kelley (2001) sparked a renewed interest in design as an approach to innovation, bringing forward what was later called 'design thinking'. Since then the concept of design thinking has been used in an almost exploding fashion to denote design's potential relation to innovativeness. The concept has not only been used by designers but also as an approach for managers to learn and use, as promoted in the business press (Boland & Collopy, 2004; T. Brown, 2008; Dunne & Martin, 2006; Verganti, 2006). This movement has been described as hype, meaning a quickly rising interest in a specific phenomenon with a supposed equal passing interest. Accordingly its duration has also been questioned (Johansson & Woodilla, 2010; Rylander, 2009b).

Bruce Nussbaum, in the role of journalist at Business Week, has been one of the main advocates of design thinking during the first decade after the millennium. In 2005 I.D. Magazine named him one of the 40 most powerful people in design, and in addition he is visiting professor of innovation and design at

Parsons The New School of Design. Ironically, while I was writing this text, Nussbaum proclaimed that design thinking is a failed experiment (Nussbaum, 2011) and that he has now moved on to what he calls CQ – Creative Intelligence. One of his reasons was that design thinking as a concept didn't deliver what was promised. But what was the actual promise, and who promised what? Nussbaum himself was one of the main promoters of the concept and thereby one of those who constructed the promises that others – like Johansson and Woodilla and Rylander – say are unreasonably high and have the character of a fad rather than something resting on a solid ground.

A closer look at the concept of design thinking reveals two different understandings, one related to the design discourse and another to the management discourse. The understanding within design dates back as far as to the design methods movement in the 1960's mentioned earlier, while the concept of design thinking in management discourse is much younger (Hassi & Lakso, 2011; Johansson & Woodilla, 2010).

One of the notions of the design-based understanding of design thinking is rooted in Schön's (1983) thoughts about reflection-in-action and emphasizes the tools and methods used by designers, as discussed above in *Characteristics of design practice* (pp. 28-29). Design thinking is then understood as a conceptualization of design practice, even of a multitude of design practices (Cross, 2006; Lawson, 1980/2004), as a way of capturing designer's cognition (Rowe, 1987).

The notion of design thinking within the management discourse is seemingly constructed from "an outside in" perspective, and describes possibilities of design tools or methods being used by non-designers (Dunne & Martin, 2006), as highlighted in the management and business literature (Boland & Collopy, 2004; Martin, 2004). With its roots in Simon's definition of design presented in the *Science of the Artificial*, "Everyone designs who devises courses of action aimed at changing existing situations into preferred ones" (Simon, 1996:111), design thinking is often used as,"approaching managerial problems as designers approach design problems" (Dunne & Martin, 2006:512). In effect this means taking designers' ways of thinking and acting into another context, including situations other than those in which they originated. In relation to the quote from Cooper and Press, this is about applying design processes and methods to management rather than the other way around. Key features of design thinking in this construction are capabilities to work with wicked problems, being open to ambiguities, and an iterative process. Martin (2009) discussed the left/right thinking capabilities of the brain as significant for design thinking. As discussed

by Cooper et al., (2009), design thinking seems to be about thinking *through* design, requiring that non-designers should adapt a designerly mind-set for entering into new situations. On the other hand, the visualizations skills, as used in the act of designing (Press & Cooper, 2003) that are key in the design practice based notion are not specifically treated within the management discourse. As discussed below in the sections on design and design practice, visualizations of different kinds are used both for development of thought as in the concept of reflection-in-action, and as effective means of communicating within a team. Visualization skills are something that develop over time and are based in an artistic training. In descriptions of the design notion of design thinking these skills are core in how the designers deal with ambiguities, iterations and complex situations.

In previous writings within the design discourse design thinking is acknowledged to be part of different practices, arguing the underpinning logics also differ: industrial design stresses the possible, the engineering side stresses the necessary and marketing stresses what is contingent in the changing attitudes and preferences of potential users (Buchanan, 1992). Understanding design thinking from this perspective shows that the hype discourse of "design thinking" in management does not take into account the true complexity and benefits of the design practice "design thinking". Possibly this might be one of the reasons for the lack of results that Nussbaum mentions. This difference was also discussed by Johansson et al. (2011) who concluded the design notion of *design thinking* or *designerly thinking* to be well grounded, consisting of five discourse with academic roots going back to the 1960's, whereas the management notion of design thinking lacks thorough academic grounding and is a new concept with 80% of the reviewed literature published after 2000.

This renewed and increased interest in designers' tools, methods and approaches from management and organizational scholars also highlights possibilities for design practice. Returning to the changing character of the design object discussed above, design is now seen as a valuable capability that does not necessarily involve products, but can be used to address issues from strategy to societal change.

Design & Innovation

Another research area that has thrived during the last decade is the intersection of design and innovation management. Innovation theory has a history

of being overshadowed by product development theory and the development of more linear approaches such as the stage-gate model (R. G. Cooper, 1988) and TQM principles (e.g., Powell, 1995); these have also been influential in the design management as management-of-design research. However, during the past approximately 10 years, the field of innovation has broadened through a number of approaches that deal more directly with how innovation occurs.

Several of these approaches to innovation are inspired by design practice and theory. For example, in the book *Design-inspired innovation* (Utterback et al., 2006) innovation scholars reported on international research about design's role in the innovation process. The authors emphasized three important aspects: technology, user need, and language. Language refers to the meaning of the product to the user in his or her context, and Verganti (2003) explored this concept further in an article on designers as brokers of language. Design-inspired innovation is further developed in research streams on design-driven innovation. In this concept radical technological innovation is coupled with meaning creation, with the suggested result of radical innovation of meaning (Verganti, 2006, 2008, 2009).

In parallel with above mentioned evolvement Hatchuel and Lemasson developed the concept-knowledge (C-K) theory, a more rational approach that nevertheless introduced a creative or generative capability to Simon's problem-solving approach to design theory (Hatchuel, 2002; Hatchuel, Le Masson, & Weil, 2001, 2002). In more recent developments these scholars viewed innovation as systemic, repeated and oriented, and essentially based on innovative design activities. The authors argued the need for strategies and structures that made room for the organization of innovative design (LeMasson, Weil, & Hatchuel, 2010). However, this understanding was still coupled with a rationalistic understanding of design than the more embodied interpretation proposed by Rylander (2009b, 2010). The design and innovation research stream relates strongest to the first stage of Cooper et al.'s (2009) design awareness situated within a manufacturing context, and could also be positioned as mainly treating things, Buchanan's second order. Similar developments have occurred in entrepreneurship theory, not least inspired by Sarasvahty's article (2001) in which she developed Simon's decision theory in the direction of effectuation – "in effect" – as learning by doing what is insecure and unknown beforehand rather than deciding among already defined options. Hjort (2001; 2007) also connected entrepreneurship with learning instead of managerial theories of control.

The area of design and innovation relates mainly to product development and is therefore not treated in further depth in this service design thesis, although the concept of design driven innovation has attracted my attention, and is discussed in later parts of this thesis. Nevertheless, the question of how design is related to innovation is core in the concept of design thinking, specifically in the way innovation was promoted by IDEO in the book *The Art of Innovation* (Kelley, 2001), discussed in greater depth above.

Service design

The expansion of design practice to include services and experiences can also be dated to this side of the millennium. In this expansion the intersection of design is with the service marketing and management discourse and can be situated in the context of brand and marketing proposed by Cooper et al. (2009) and related to Buchanan's proposed third order of design, action, and also thought (Holmlid, 2009a). Studies in design management have had a strong product development focus, emphasizing the design order of things rather than interaction or thought (Holmlid, 2009a; Sun, et al., 2011). Nevertheless, there is research in service design leadership (Gloppen, 2009) and how to manage designers' and other stakeholders' involvement in the service design process (Han, 2010). Holmlid (2008) concluded that the implementation and evaluation processes are critical challenges for the design management of service design, specifically because service design most often is performed or realized by people, not products.

Returning to the quote of Dumas and Mintzberg (p. 38), design management in the service sector also involves order, control and guidance of people, processes and activities in addition to the things, artifacts and images that have been the competence areas of industrial design. This development and the implications thereof are discussed in detail in the chapter on service design. In addition, the relation of design and service marketing and management is the main topic of this thesis and is further treated throughout the following chapters and is therefore not dealt with in more detail in this section.

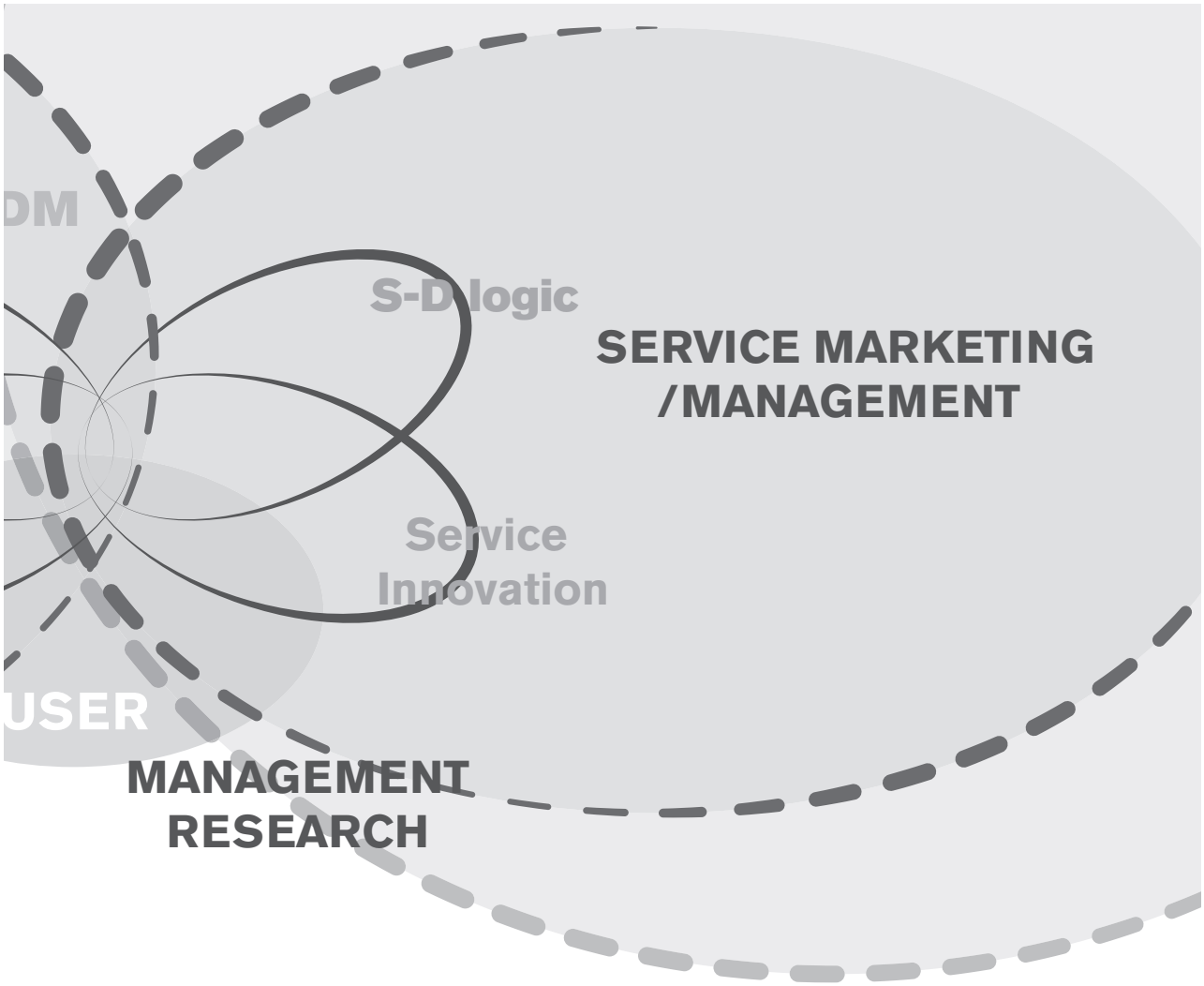
SUMMARY

In this chapter I briefly traced the historical roots of design management back to the early 20th century. This was followed with a description of the development

of an academic discourse, beginning with the early publications at the end of the 1980's. Here I noted a specific interest in design and strategy that developed during the 1990's and influenced executive interest.

A description of two research directions followed: one treating design management as management of design, the other discussing and problematizing design management as the intersection of design and management. From this I brought forward the position that design and management rely on different epistemological grounds. Further, I discussed three research areas situated in the intersection of design and management: design thinking, design and innovation, and service design.

Out of these three areas, design thinking was treated in most detail. I concluded that there are at least two parallel notions of the concept, one rooted in the design research tradition, and one more recent, emerging this side the millennium, in the management discourse. After highlighting differences between the two traditions, I concluded with clarifying my understanding of design thinking as a design-practice based discourse in the context of this thesis. This thesis investigates relations between the design discourse and the service marketing/management discourse, so I will present the latter in more detail in the next chapter.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RESEARCH

CHAPTER 4

Service marketing/management

In this chapter, I first describe briefly how the research field of service marketing and management developed from within marketing research, then describe the Service-Dominant logic perspective, its key concepts and implications for service innovation. Further, the chapter presents the ways service design has been treated within this research stream and ends with a summary.

DEVELOPMENT OF SERVICE MARKETING AND SERVICE MANAGEMENT

Services marketing as an explicit field of research emerged around the 1970's, and by the 1980's the body of knowledge was strong enough to be regarded as an research area in its own right (Berry & Parasuraman, 1993; S. Brown, et al., 1994). The driver behind the development of service marketing in academia was the growing service economy, specifically the deregulation of several service-intensive areas in the 1980's, such as the airline, financial service and telecommunications industries (Berry & Parasuraman, 1993; S. Brown, et al., 1994). In addition, strong individuals in the international arena contributed to building the foundation. The research area has been cross-disciplinary from its emergence, treating issues such as quality management, design and control of intangible process and organizational issues, and resulting in an overlap between marketing and operations functions (ibid.). Thus, the research streams of service marketing/management were difficult to separate.

The early research treated the extent to which marketing of services was different from marketing of goods, and was almost exclusively conceptual (Berry & Parasuraman, 1993; S. Brown, et al., 1994). Shostacks' (1977) Harvard Business Review article *Breaking free from product marketing* is regarded as seminal for the field, and also showed the influence of practitioners in the development of the research areas. The article argued that Kotler's marketing logic with its product focus was not suitable for service companies.

During the following decade the academic focus was on the goods and services dichotomy (Matthing, 2004) and IHIP emerged as the best-known model to define and describe services (Zeithaml, et al., 1985). IHIP stands for **I**ntangibility – services are not tangible, therefore they cannot be judged before consumption, for example, compare a sweater with a bus trip; **H**eterogeneity – the people that take part in the service delivery process, provider and consumer, are unique at each occasion, therefore it is not possible to reproduce a service; **I**nseparability of production and consumption – services are consumed and produced at the same moment, hence the planning and development process must be different; **P**erishability – service cannot be stored or saved (ibid.).

The IHIP model was widely accepted and used, however, the model has also been critiqued. The main critique concerned services being described in relation to products, so that the focus easily becomes what services are not, which might block possibilities of seeing important aspects of services. Another critique was the fact that the IHIP model does not account for what services have become in practice. In fact, the character of service has changed enormously with the development of networked technologies since the early 1980's. This can be seen as one major reason why the formerly static description of services was no longer regarded as relevant.

New ideas of how to describe the nature of services emerged where the emphasis was on service as a perspective rather than as a replacement of products. For instance the relational aspects of the service encounter (Grönroos, 2000; Gummesson, 1995), and the character of value creation as being a value constellation rather than a value chain (Normann, 2001; Normann & Ramirez, 1993). In 2004 Vargo and Lusch (2004) brought these and several other perspectives together and suggested a Service-Dominant logic (S-D logic) of the market. Their article started a debate regarding the relevance of the vocabulary, the extent to which this concept could be regarded as new or not, and the potential implications. For more extended reading on this discussion see Lusch and Vargo (2006) and the special issue of *Journal of the Academic Marketing Science* in 2008.

WHAT DOES A SERVICE-DOMINANT LOGIC PERSPECTIVE MEAN?

S-D logic should be understood as a perspective on value creation rather than a theory. Some of the aspects and thoughts of S-D logic are intriguing and

resonate well with my understanding of how design practice relates to value creation.

The first fundamental argument in the proposed perspective was to define service as: "applications of competences (knowledge and skills), through deeds, processes, and performances, for the benefit of another entity or the entity itself." (Vargo & Lusch, 2008b:26). In so doing the understanding of service was no longer tied to whether the outcome is tangible or not, this was further emphasized in Foundational Premise (FP) number 1: *service is the fundamental basis of exchange* (Vargo & Lusch, 2008a:7).

These thoughts were further elaborated in eight FP's, which were later developed into ten (for further reading on the development (see Vargo & Lusch, 2008a). A short description of the ten premises is presented in Table 1.

Foundational premises of S-D logic

Premise number	Foundational premise
FP1	Service is the fundamental basis of exchange.
FP2	Indirect exchange masks the fundamental basisof exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of competitive advantage.
FP5	All economies are service economies.
FP6	The customer is always a co-creator of value.
FP7	The enterprise can not deliver value, but only offer value propositions.
FP8	A service-centered view is inherently customer oriented and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologi cally determined by the beneficiary.

Table 1. The Foundational premises of S-D logic, adapted from (Vargo & Lusch, 2008a).

The authors returned to early economic theories to argue:

> The S-D logic view of exchange fundamentally challenges the foundation of economics (Vargo & Lusch, 2004), though in a real sense, it recaptures Smith's (1776) original notions of applied, specialized knowledge and skills (service) and value-in-use (real value) as primary." (Vargo, et al., 2008:147).

Vargo and Lusch (2008a) proposed that goods and services are means for service provision in FP 1 and FP 2, see Table 1. In effect, goods and services are means for *value creation.* This broke the product-services dichotomy, and emphasized the importance of the actual use situation. In FP6-FP8 the relation between the company and the customers is brought forward as key for value creation and as an important resource in value co-creation.

Specifically, the understanding of value-in-use is interesting, even more so when developed into value-in-context. The latter's focus on the situation where the value is created is fundamentally different, as well as in acknowledging people to be part of this value-creation situation.

Value in use and context

Vargo and Lusch's (2004; 2008a) notion of value creation differs from the traditional notion of value creation as a sequential process, the so-called 'value-in-exchange' based in the goods dominant logic, where the value is destroyed when consumed (Vargo & Akaka, 2009). Instead, services are usually described as processes in which the users are actively taking part in the interaction with the service provider (Shostack, 1984). The user is co-creator in the value creation process; the customer then determines the value of this process at the moment of use, which is called 'value-in-use'.

If the user defines the value, in use, the situation in which the person is situated is important; this also highlights the time and place dimensions and network relationships as key variables (Vargo, et al., 2008). "By the combination of FP9 and FP10: value is uniquely and phenomenologically determined by the beneficiary." (ibid.), suggesting that value-in-use is extended to value-in-context. From the provider's perspective, this means that the same service delivery process might generate different values for different users depending on the context. Value-in-context is a concept that is debated but I find it interesting from a design perspective since it emphasizes the contextual nature.

The understanding of value as created in use and in context, rather than accumulated in a production process, was previously present in the Australian School of Economics (see Wieser, 1891). Key principles were that value is situated, individual, and conceived as value-in-use, hence very similar to the key concepts of S-D logic in these aspects. Heskett (2009) brought forward the Austrian school as a useful perspective for understanding how design creates value.

Value is co-created

Service and goods create a single customer experience from the customer point of view. Firms cannot deliver value, instead value is co-created with the customer (Vargo & Lusch, 2004; 2008a). Consequently customer participation and co-creation have crucial roles in recent service marketing literature, for example, Grönroos (2008). Other scholars have also explored the co-production of value, as well as its contextual nature (e.g., Normann et al., 1993). But while the customer determines the value of service innovation, it is the firm that is responsible for developing the proposition (Jaworski & Kohli, 2006), or for facilitating and organizing the collaboration process (Payne, Storbacka, & Frow, 2008; Piller, Ihl, & Vossen, 2011).

There are several implications of S-D logic perspective in relation to how the firm understands the value creation process. The changed perspective requires other methods and tools than traditional marketing approaches for understanding the co-creational situation, both in the realization of value and in the development processes. From a design perspective, implications for the new service development and innovation processes are particularly interesting.

SERVICE INNOVATION

The research in service innovation mirrors the early discussions within the service marketing field, including the difference between services and products and to what extent the innovation processes are different for the two (Gallouj & Weinstein, 1997). However, the behavioral aspects are emphasized in innovation. Innovation in service is most often either technological or behavioral, as well as combination of the two. Thus innovation in service can be seen as "renewal of human behavior" (Sundbo, 2008:26) based on the view of service as "fundamentally a behavioral act" (ibid.,:26). Further, innovation in service is most often seen as a process (Gallouj & Weinstein, 1997).

Introducing different models of service innovation, Gallouj & Weinsten (1997) break the distinction of radical and non-radical innovations. Among these models ad-hoc innovation stands out as typically characteristic for high knowledge intensity activities; other models include recombination innovation and formalization innovation. Other sources claim that the degree of innovation in service is almost impossible to define due to its complexity and diversity (Edvardsson, Gustafsson, Johnson, & Sandén, 2000).

In line with the suggestion of service innovation based on knowledge and skills, several scholars discuss the implications of S-D logic perspective (Michel, S. Brown, & Gallan, 2008a; Ordanini & Parasuraman, 2011; Payne, et al., 2008). This research redefines the structures and demands for what is to be considered as radical/discontinuous or incremental innovation and how these arise. In their empirical study, Michel et al. (2008a) argue that discontinuous innovation according to a S-D logic perspective can arise along two dimensions: changes in the roles of the customers, and changes in the firm's value creation. Discontinuous innovation is defined as significantly changing how customers co-create value, and significantly affects market size, prices, revenues, and so on. According to the authors, innovation in service would be to innovate customers, based on their three roles: *users, buyers* and *payers*, instead of products (Michel, S. Brown, & Gallan, 2008b). In addition the firm's value creation is changed in three possible ways: 1) knowledge is embedded in objects, 2) resources are and integrated or divided within the firm and in relation to the customers, and 3) knowledge and resources are distributed among a number of parties involved in the value co-creation. According to this study discontinuous innovation always significantly alters one of the dimensions of the firm's value creation, and at least one or some combination of the customer roles.

Building on the above-mentioned study, Ordanini & Parasuman (2011) proposed a framework connecting two facets of service innovation, volume and radicalness, and their effect on two types of firm performance, revenue growth and change in EBIT. They used their developed framework in an empirical analysis that explored relations between contact employee participation, customer collaboration and customer orientation. Customer collaboration was measured through the richness and frequency of customer interactions and customer orientation was measured in relation to culture and decision-making. The authors concluded that there is no trade off when working with both radical and incremental innovation simultaneously. They further suggested that

customer orientation fosters radical innovation; however, customer collaboration contributes to innovation volume (ibid.).

The first study (Michel et al., 2008a), argued for the importance of understanding what constitutes a discontinuous innovation through a S-D logic perspective, the other study (Ordanini & Parasuman, 2011), focused on the firm's internal activities and strategies for innovation in service, specifically in relation to involvement of customers and employees. Both studies emphasized the importance and complexity of understanding the integration of resources and knowledge.

In relation to design, the proposition of "innovating customers" (Michel, et al., 2008a) can be seen as a reframing of what the design object actually is. Furthermore, the study questions if the firm can or should control these roles at all. In the design discourse this has been discussed as being outside the scope of the designers, although within the context of the designers being able to predict what the actual use will become (Redström, 2006). In addition, the second study (Ordanini & Parasuraman, 2011) brings to light the complex relationship between radicalness and customer involvement. However, customer collaboration seems to be actual activities with customers, whereas customer orientation is an approach within the firm. The conclusions regarding service innovation radicalness mirror to some extent the propositions in design driven innovation, further discussed in Service design and the idea of co-creation p. 49. Claiming that radical innovation does not occur in close relationship with the customers. However, the question arises, How to manage this when the outcome, the service, is co-created with the customer?

THE CONCEPT OF DESIGN IN SERVICE RESEARCH

In service research the broader concept of New Service Development (NSD) has attracted more attention than service design per se. In the early research the specific concept of service design was directly related to different mapping techniques and to Total Quality Management (TQM) (S. Brown, et al., 1994). Later, Goldstein et al., (2002) proposed the service concept to be the 'missing link' in service design research, implying a holistic view of the NSD process. According to these authors the term *service design* has been used to describe various aspects within NSD. However, more often service design has been treated similarly to how product design has been treated in New Product Development. For example Edvardsson et al., (2000:28) described it as, "In the design phase

the service concept is developed into a service", thus making service design a distinct phase. This means that service design is seen as an "add-on", as styling or something that comes in quite late in the process. This is fundamentally different from the descriptions of service design in the design discourse, where its holistic character is emphasized (e.g. Stickdorn & Schneider, 2010), and understood as more synonymous to service innovation.

However, some scholars have been interested in specific aspects relating to the design of service. Research has been conducted on the environmental settings in which services takes place with regards to behavioral aspects, including the impact on both customers and employees in the area of service-scapes (Bitner, 1992). Service blueprinting is one of the few tools that is, *firstly*, well documented and, *secondly*, adopted and used both within service marketing and service design practices (see Bitner, Ostrom, & Morgan, 2008; Shostack, 1982; Wreiner et al., 2009). Cook et al. (2002) discussed the use of emotions and needs in the relation to service design, and connected needs to extreme emotions such as delight and outrage, which they suggested guide design work. Further, Zomerdijk and Voss (2010) developed and empirically investigated principles for experience-centric services. The sample included both design agencies and service providers. They found that the design agencies put emphasis on the design of encounters and touchpoints, and the dramatic structure of the service, as well paying attention to sensory design. However, the design agencies paid less attention to the firms' internal structures and the engagement of customers through the firms employees. Recently service design and design thinking have been emphasized as one of ten important development areas for service research (Ostrom, et al., 2010), and Fisk (in Ostrom, et al., 2010) draws the connection to the arts as to a field where emotions are worked with in practice and sees this as an area for future development.

In conclusion, the concept of silent design (Gorb & Dumas, 1987) has played and still plays an important role in service design and creation. Silent design implies that design decisions are made and carried out by people with no formal design position or training. This aspect is also part of industrial design but it becomes crucial in the design of service since it is often difficult to beforehand to predict how the people involved in the service creation will act or behave. Until recently there has been no specific profession, training or position responsible for service design within the firms, which is problematic. There have effectively been no trained or educated service designers, instead they have developed their practice as they met new challenges based in other design traditions, as I discuss

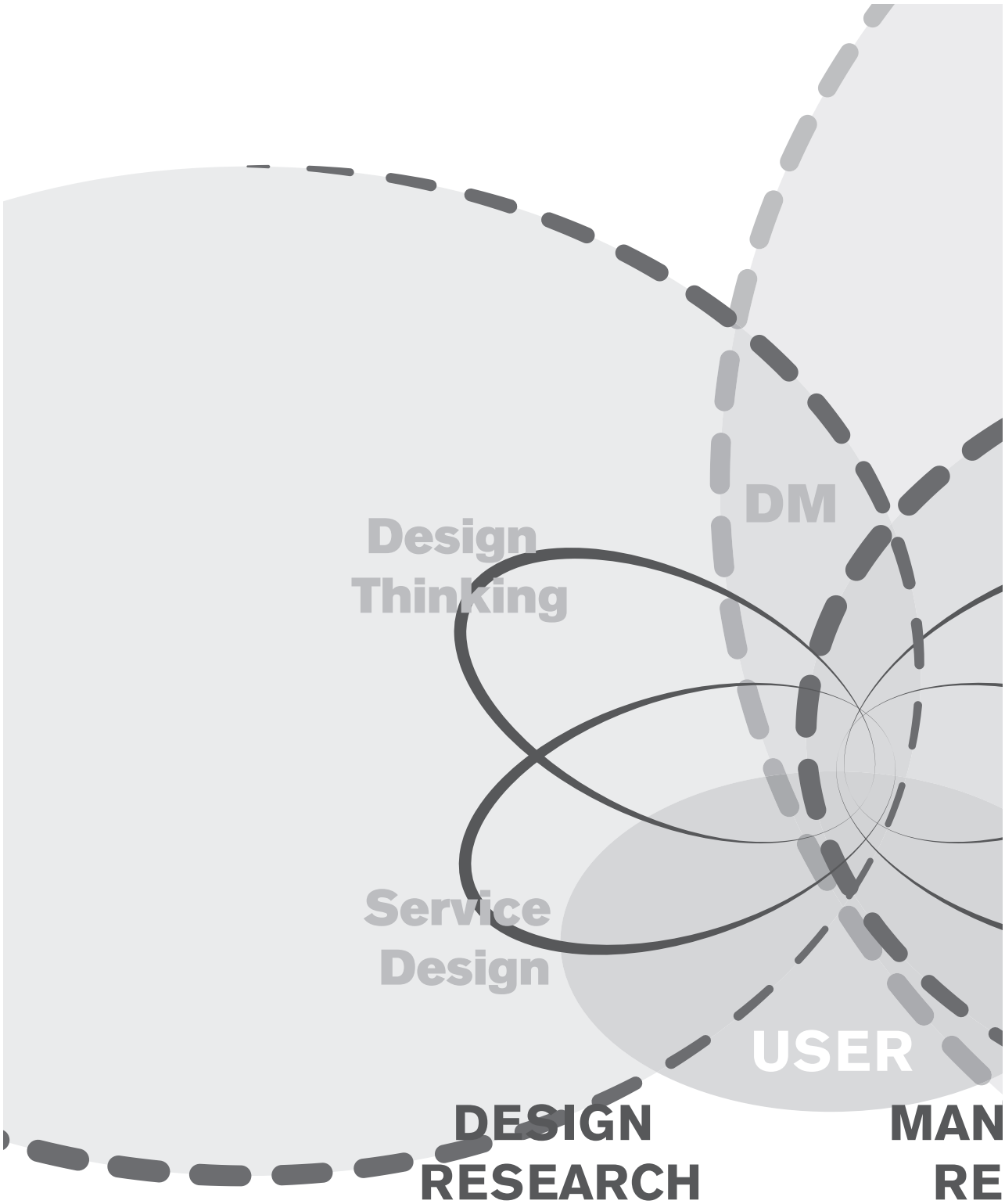
in the next chapter. However this is about to change, and educational programs are being developed both in Europe and in North America.

SUMMARY

In this chapter the evolution of a service marketing/management discourse was discussed. The early research focused on how to distinguish the marketing of services from products. Then, from within the service marketing research a changing perspective emerged with the focus on how value is created. This perspective, named S-D logic implies that knowledge instead of products is core, and value is co-created, or even realized by customers, not solely by the producing company.

Value-in-use was brought forward instead of value in exchange, and with that the notion of value as situated and individual. However, the conceptualization of this understanding into S-D logic stirred up quite a discussion and the implications of actually adopting this kind of perspective in business has formed a new stream of research within the (service) marketing/management field. The implications of this perspective on service innovation, putting emphases on involvement of the people's knowledge and skills in the process were described. In addition, this perspective softens the understanding of innovation as incremental or radical, because it relies on the understanding of where and in whose context the innovation is realized.

In the final section I described how service design has been positioned within service marketing/management. Service innovation takes on an internal firm perspective, placed as it is within a business discourse, where design is viewed as a part of the process: services have been designed, but with a business focus and perspective. However, the engagement of practitioners with design background as part of the teams developing service leads to the emergence of another design discipline – *Service design*. In the next chapter this evolving design practice is discussed.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CHAPTER 5

Service design: emergence and directions

In this chapter I show "why, how and from where" service design has emerged, and present current directions in service design research. Afterwards I present five characteristics of service design practice found in the literature, and then summarize and discuss the findings of this chapter.

EMERGENCE OF SERVICE DESIGN

There is no possible way to draw a straight line showing the development from industrial design to service design; there is no such straight development. Service design has grown out of a multitude of perspectives, both within and outside the designerly sphere, and is still growing. The early academic work was in Italy and Germany with scholars writing in their respective mother tongue. Unfortunately this work is not readily accessible to those of us not speaking or reading Italian or German. This makes it difficult to draw a comprehensive image of the development of service design as a research area. However, with this said, I build on work published in English acknowledging that this might give a limited view.

The emergence of service design was accompanied by several large scale developments: 1) the development and growth of networked media technologies, 2) the attention paid to the role of design for innovation of new products and services, explicitly by management theory and practice, 3) the general phenomena of changing markets, from goods to experience economy, in effect the growing service economy, and 4) the more design specific of considering social change as design problems (Kimbell, 2009c; Sangiorgi, 2009; Vaajakallio, Mattelmäki, Lehtinen, Kantola, & Kuikkaniemi, 2009). Vaajakallio et al. (2009) argue for a general increased interest in a user-centric perspective whereas Kimbell (2009c) argues that the attention paid to the role of design for innovation, is focused on designer's creative input in three explicit areas: the designer's a) human-centered approach and methods, b) iterative processes of idea-generation through modeling and prototyping and c) competence in aesthetics and visual forms.

Service design as a practical activity within the designer's competence is rather new; it is often regarded as starting around the turn of the millennium, for example, the British service design firm live|work started as the first pronounced service design agency in 2001, and U.S based product design firm IDEO included service design in 2002 (Moggridge, 2007). Han (2010) gives an extensive overview of the present British service design practitioner landscape in her doctoral dissertation.

In academia, in 1995 Birgit Mager became the first professor in service design (Tether & Stigliani, 2010) at Köln international school of design, and since 2006 head of the *SEDES Research - center for service design research* in Cologne. The early writings focused on descriptions of service design, but, as mentioned, are in German. Moritz' master thesis, written in English, (Moritz, 2005) is often referred to as good foundational description of service design. In an English overview of the early Italian service design research Pacenti and Sangiorgi (2010) describe the way service design research started in the 1990's and emerged from architecture and interaction design. The authors acknowledge the importance of Ezio Manzini's intuition to bring forward this new area of investigation. Three main areas of research developed from an interest in sustainability, and the relationship between products/services and service interactions. These areas are described as 1) Transformation 2) Systems and 3) Interactions (ibid.) So, while the German path focused on creating awareness of the emerging field, with a *'see service as products'* perspective, the Italian research community focused on production of the first PhD dissertations using a *'see service as interactions'* viewpoint (Sangiorgi, 2009; Segelström, 2010).

By 2004 the research and practice-based community had grown and the Service Design Network was formed by a collaboration among Köln International School of Design in Germany, Carnegie Mellon University in USA, Linköpings Universitet in Sweden, Politecnico de Milan/Domus Academy in Italy, and agency Spirit of Creation, UK (Segelström, 2010). The founding members then developed the following definition, which has become the *"Service design manifesto"*[4]*:*

> Service design addresses the functionality and form of services from the perspective of clients. It aims to ensure that service Interfaces are useful, usable, and desir-

4. http://www.service-design-network.org/content/sdn-manifesto

able from the client's point of view and effective, efficient and distinctive from the supplier's point of view.

Service designers visualize, formulate, and choreograph solutions to problems that do not necessarily exist today; they observe and interpret requirements and behavioral patterns and transform them into possible future services.

This process applies explorative, generative, and evaluative design approaches, and the restructuring of existing services is as much a challenge in service design as the development of innovative new services.

A large portion of the discussion concerning the development of service design takes part on the Internet through different forums and blogs and to a large extent is practitioner driven. Two key project reports by British think tanks, both reporting on public sector cases, deserve to be mentioned. First Demos' *The Journey to the Interface* (Parker & Heapy, 2006) has become a central source in the description of service design, the vocabulary used, and literature used in education. Secondly, the British Design Council think/do-tank's *The RED Paper 02, Transformation design* (Burns, et al., 2006) is most often cited as a foundation in discussions relating service design and transformation. In April 2009 the first magazine – *Touchpoint, The Journal of Service Design* – was launched by the Service Design Network. Touchpoint is a non-peer reviewed publication widely spread and read in the service design community. In 2009 a number of conferences, highlighting service design as research, area were held: European Academy of Design conference included an entire track on Service Design, at the IASDR (International Association of Societies of Design Research) Conference a special session was held (Sangiorgi & Holmlid, 2009), and the same year saw the first ServDes – The Nordic Service Design and Innovation Conference that, despite its name, reaches and attracts global scholars.

DIRECTIONS IN SERVICE DESIGN RESEARCH

The growing academic interest has now generated enough knowledge to make it possible to distinguish a set of directions and approaches in service design research, building the area from a design perspective. In broad terms the development of research within service design has been concerned with the following themes: exploring and describing the emerging practice (Sangiorgi, 2009), attempting to classify and differentiate it within the design disciplines (Holmlid, 2007), or to define relations to service management, marketing and

engineering. In effect, the main efforts have been to define the field. Just as service has been positioned relative to products, service design was positioned relative to industrial design (Holmlid & Evenson, 2008), although the early research instead emerged from designers and practitioners with an interaction design background (Holmlid, 2009b). As knowledge has been built, two major approaches in the early peer-reviewed research in service design have been identified (Blomkvist, Holmlid, & Segelström, 2010). The first approach is to widen the scope by connecting the emerging discipline to other non-design fields, like marketing and engineering, and the second approach is to explore and challenge the basic assumptions in service design and the inherited methods.

Looking at the early Italian research the three main streams identified are: transformations, interactions and systems/complexity. They are argued to be representative of the development of service design research that has developed to date on an international arena (Pacenti & Sangiorgi, 2010). I understand these streams in relation to what is being designed: Transformations on individual, organizational or societal level, Interactions at different interfaces (one-one, one-many, many-many) and with this follows a demand for understanding the increased Complexity on a systemic level (Sangiorgi, 2009).

In a review of peer-reviewed material published in 2008-2009 Blomkvist and colleagues (2010) identified five somewhat overlapping trends within these three streams. Research focused on building knowledge related to: 1) design theory, 2) management, 3) systemic approaches, 4) design techniques and 5) case studies. The design theory trend relates to the construction of a common language, exploration of perspectives on service design and exploration of co-creation. The overview highlights the dominance of work related to the development of design techniques including the development of new tools and processes, and integration of already existing ones from other fields. Management is also explicitly mentioned as a research area used for grounding knowledge. The systemic approaches are mainly attributed to an engineering perspective and work connected to product-service-systems (Morelli, 2003, 2009). The overview also highlights the lack of case descriptions that meet academic standards, and shows that most of the existing case-descriptions come from public and healthcare projects.

In conclusion, service design has been described from a design perspective *as design of interactions at different interfaces* (Pacenti & Sangiorgi, 2010; Sangiorgi, 2009), *as the design of experiences through touchpoints and over time* (live|work in Moggridge, 2007), *as applying design methods and principles to the develop-*

ment of service, (Holmlid & Evenson, 2008) or even as an area that is not possible to define due to its interdisciplinary character (Stickdorn, 2010).

In the next section I synthesize the descriptions of service design I have found in the literature with an explicit focus on relations with, and implication for practice. In order to have a wider view and discussions, the analysis includes non-peer reviewed sources as T*ouchpoint the Journal of Service Design* and *interactions magazine.*

THREE QUESTIONS AND FIVE CHARACTERISTICS OF SERVICE DESIGN PRACTICE IN LITERATURE

In this section I describe service design practice through the lens of asking three questions: How? Who? and What?, relating them as in Figure 4. The figure places the question, "Who is doing service design?" in the center since the different tools and methods will be used through that specific competence and perspective. The tools and methods are discussed as "How is service design carried through and which are the dominant descriptions?" This is placed as going into the model. The outcome, "What is being designed?" (or "What is considered to be the design object?"), is placed at the head of the arrow. I do not by any means imply that this is a closed process, but it shows in a simplistic manner that someone uses tools and methods to achieve something.

By posing these questions I synthesize the literature and descriptions, both academic and practitioner oriented, of service design practice and research as five characteristics, described in detail below, and integrate them in the developed model presented in Figure 5. I also highlight the explicit relation between service design and service marketing/management in the discussion.

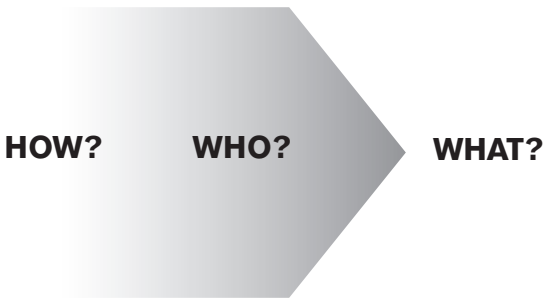


Figure 4. The structure of the model

Who?

1. Interdiscplinary

One dominant description of service design is its interdisciplinary character; this also holds for service research at large (Ostrom, et al., 2010). This character implies that there are several different practices that inform the emerging service design discipline. There seem to be two main design practices engaged here: designers with a background in product design and designers with a background in interaction design (Blomkvist, et al., 2010; Sangiorgi & Pacenti, 2008). The scope of interaction design also covers how individuals relate and interact with products at large, and is often related to computer interfaces and software development. Interaction designers have explicitly dealt with processes, time, and intangibility issues in interactions (Holmlid, 2007). These are some of new facets of the design object that designers from an industrial design background have to deal with. The transition from interaction design to service design, and also the heritage is explored more often than how the transition takes place from product/industrial designs practice to service design (ibid.). In addition a multitude of design tools and methods are merged with ethnographic approaches (Segelström, Raijmakers, & Holmlid, 2009) and further combined with more established (meaning more well documented and researched) management and marketing tools and vocabulary, such as service blueprint (Segelström, 2010).

The designer profile has often been described as T-shaped, depicting a broad general knowledge plus a deep knowledge and skills connected to visualization, users, and aesthetics, for example. For instance, Guldbrandsen and van Dijk (2011) discuss the phenomenon with the increased interdisciplinarity in *Touchpoint*, and argue need for distinct professional practices. With this in mind I believe it is important to bring forward what design practice is in service design.

Explicit relation to service management/marketing

The integrative and collaborative nature of service design, a fairly recent development, is particularly relevant for understanding the relationship between design and marketing/management. Both service design and the recent developments in service marketing focus on the role of the user.

Although I do not include an explicit relationship to service marketing/management as a characteristic of service design, it is relevant to highlight this as something worth attention. The design practices involved in the design of

service interact and integrate with the service management and service marketing functions within a company (Ostrom, et al., 2010; Sangiorgi, 2009).

"Service Design role (focused on the service interface) is [positioned] between Service Management (focused on service organization) and Service Marketing (focused on service offering and market)." (Sangiorgi, 2009:2)

This is a repositioning of design practice in relation to the client company. Historically, designers of products and digital interactions and interfaces have had contact mainly with the product development department. In the design of service, new disciplines, relations, and competences are involved. The emphasis of the design management studies to date has been on the value produced through development, rather than on the value created through use (Holmlid, 2009a). Studies have included the intersection of industrial design and engineering with regards to barriers and design's relation to performance (Edeholt, 2004; Gemser & Leenders, 2001; Persson, 2005), the intersection between industrial design and marketing (Bruce, 2002; Lindahl & Nordin, 2010; Veryzer, 2005), and also the relationships among all three: industrial design, marketing and engineering (Johansson & Svengren Holm, 2008a).

In practice non-designers within the organizations often carry through the service development. Most of the current research on the relationship between design practice and service management concentrates on the role of the designer and the expansion of their competence area. Service Design Leadership is discussed as an approach for designing service innovations (Gloppen, 2009), whereas the integration of trained designers and 'silent designers' (Gorb & Dumas, 1987) is important for implementing successful service innovations. The service designer's proposals for new services and new service propositions may require new business models for an organization (Kimbell, 2009c), a requirement accentuated by other studies that found that service designers often interact with the client firm at the strategic level (Gloppen, 2009; Han, 2010). Recent work emphasizes the designer's role as facilitator and connects service design practice to understanding knowledge creation as a movement between tacit and explicit knowledge (Dubberly & Evenson, 2011; Han, 2010; Manhaes, et al., 2010).

How?

2. Visualizations and prototyping

Tools and methods are often described as core in design and, above all, competence in visual form and aesthetics are argued to be one of the key skills of design practice. These are used both as a tool for the designer's own understanding, as in reflection-in-action (Schön, 1983), and as a tool for communication, for developing ideas and in presentations. In service design the intangible nature of the interactions that form the service again puts a focus on visualization. This applies both in the development process where diverse tools and methods developed (Segelström, 2010), and in the realization of the service where evidencing (i.e. making the service tangible) has become an important aspect of service design (Stickdorn, 2010). Morelli (2003) argues that designers have developed practical skills to visualize and clarify for the purpose of concretization of demands related to qualitative and abstract values. Diana, Pacenti, and Tassi (2010) classify visualization techniques in four general categories: maps, flows, images and narratives. Segelström (2010), in his licentiate thesis, explores and describes six commonly used visualization techniques. The six techniques are blueprinting, customer journey, desktop walkthrough, persona, storyboard and system map.

Prototyping shows aspects other than traditional visualization techniques as it involves people and artifacts. In explorations of prototyping for understanding and developing an ongoing practice. Findings suggest that prototyping services poses different challenges than prototyping products (e.g. Blomkvist & Holmlid, 2010). These challenges are mainly related to lack of control of the final service context, including inconsistency in service delivery, authenticity of behavior and context, validity of evaluation. They are also related to the understood character of service as design material, that is, the intangibility and the influence of time.

So far, the research on visualization and prototyping has focused on categorization and description of methods and tools, and not so much on the nature of designerly practices in these tools (the What). However, it is often pointed out that these tools are different than the tools traditionally used in service marketing, for example. Although the aesthetic competence is considered as a general characteristic of design practice, so far little research treats how it explicitly materializes in service design.

3. Participation

Service design practice is described as inherently customer and user-centered (Holmlid, 2009b; Stickdorn, 2010). Generally this is a description that relates to design practice in general, meaning to always keep the human perspective (Hanington, 2003), and Kimbell (2009c) relates this attribute to the designers' creative assets. In this thesis I discuss empathic abilities in the section on design thinking, and user involvement is one of the frequently mentioned characteristics of design practice as previously discussed. Methods to capture and communicate this empathic ability are among the items placed under a broad user-centered umbrella.

In descriptions of service design practice, empathic ability is often taken one step further and service design is often described as co-creational and participatory. These practices mean involving other stakeholders (non-designers) in the idea generation process (Han, 2010; Stickdorn, 2010), often by using participatory design techniques (e.g. Burns, et al., 2006). This heritage is anchored in the interaction design discourse and most prominently in the connection to the HCI (Human-Computer Interaction) research and the participatory design tradition (Holmlid, 2009b; Junginger, 2011). Co-creation and participatory implies designing *with* people instead of *for* people. Moving between the perspectives of designing *with* and designing *for* is difficult (Sanders & Stappers, 2008), I will discuss this further in *User involvement in service design and service management* see p. 48 -56.

Taking a participatory approach increases the need for designers to develop facilitator skills and to know how to prepare the platform where the participation/co-creation will take place (Han, 2010). As I discuss in the sections on user involvement and design thinking, designers' empathic skills are emphasized, specifically in different tools and methods that should make it possible to communicate these experiences.

Maffei et al. (2005) argue for a merger between user-driven design approaches and contemporary innovation theory in service. However, to date there has been very little work done in this direction, although Sangiorgi and Pacenti (2008) coin the concept of service design driven innovation and define it as a user-centered approach to innovation.

What?

4. Designing transformation

As discussed in the section of the changing design object, there is a strong notion of transformative powers in service design. Pacenti and Sangiorgi (2010) identify transformation as one of three main research areas in service design research.

Although design and the organization was discussed as far back as 1997 (Bruce & Cooper, 1997) the focus was on the product and the physical manifestation of design. The relation is discussed in terms of dependencies, how marketing decisions affect design or market triggers of design rather than how design could be used for changing the organization as such.

The transformative character of the design object implies that designers increasingly meet issues of organizational and behavioral change. This change takes place at different levels: individual, organizational and societal (Sangiorgi, 2009, 2010). In her study of service design in the Australian tax authority, Junginger (2006) relates service design to organizational change, and other scholars discuss the transformative powers of prototyping in relation to organizational change (Coughlan, Suri, & Canales, 2007). *Touchpoint* dedicated, a special issue, its May 2010 issue to service design and behavioral change, which shows an increasing awareness and interest in these areas. An outcome that can be described as transformation has a process character, which means that it is ongoing and continuous (Holmlid, 2007) and also described as sequential (Stickdorn, 2010). This outcome has a distinct phase in its development process, and most often is not the same as in the realization of the actual service; this is the case also with products. However, in comparison with product design, the difference is the continuous involvement with the organization. The organization and its employees are part of the system that realizes the service, together with the user.

5. Designing value creation

Design for service (Kimbell, 2009b; Kimbell & Seidel, 2008) builds on the understanding of service from a S-D logic perspective, that is, as value creation. The distinction is not if the design is a tangible or intangible, but on the value that is jointly created in the context with customers/users (Vargo & Lusch, 2004). New technology developments have completely changed how we interact

with and organize people, artifacts and interactions, and thus also how innovation is understood.

Service design is often described as holistic with a focus on relations and interactions in systems (Mager, 2009; Manzini, 2009 ; Sangiorgi, 2009; Stickdorn, 2010). Sangiorgi (2010) draws on the increased level of complexity in transformation design where the interactions are at the level of systems and networks, and discusses design for services rather than service design. The design object then becomes how the actors within the system relate and act for value creation. Kimbell (2009a) argues, in line with Vargo & Lusch (2004, 2008a), that a service perspective is thus fundamental to all (design) activity, since the value is co-created, whether it is with a product or in a service encounter.

THE MODEL WITH FIVE CHARACTERISTICS

The model previously presented in Figure 4 is complemented by the integration of the identified characteristics see Figure 5, below.

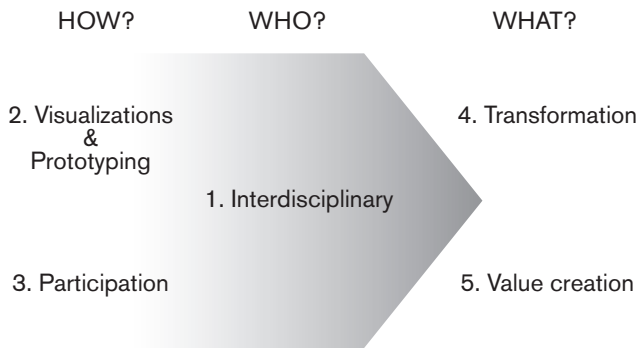


Figure 5. The developed model, integrating service design characteristics found in literature.

The synthesized model describes the service design practice by answering the questions posed in the following way:

Who? Service design is interdisciplinary, and several competences are involved in this process. Focus is on the fact that distinct practices are needed

to form this interdisciplinary setting. However, little research has been done to show how these different perspectives and practices impact on the use of methods and the outcomes.

How? Service design is described as a visualizing and prototyping practice. The process of doing this is as important as the result; they are both seen as ongoing processes. Further, the notion of service design as participatory is very strong, although there seem to be different understandings of what participation and/or co-creation actually means.

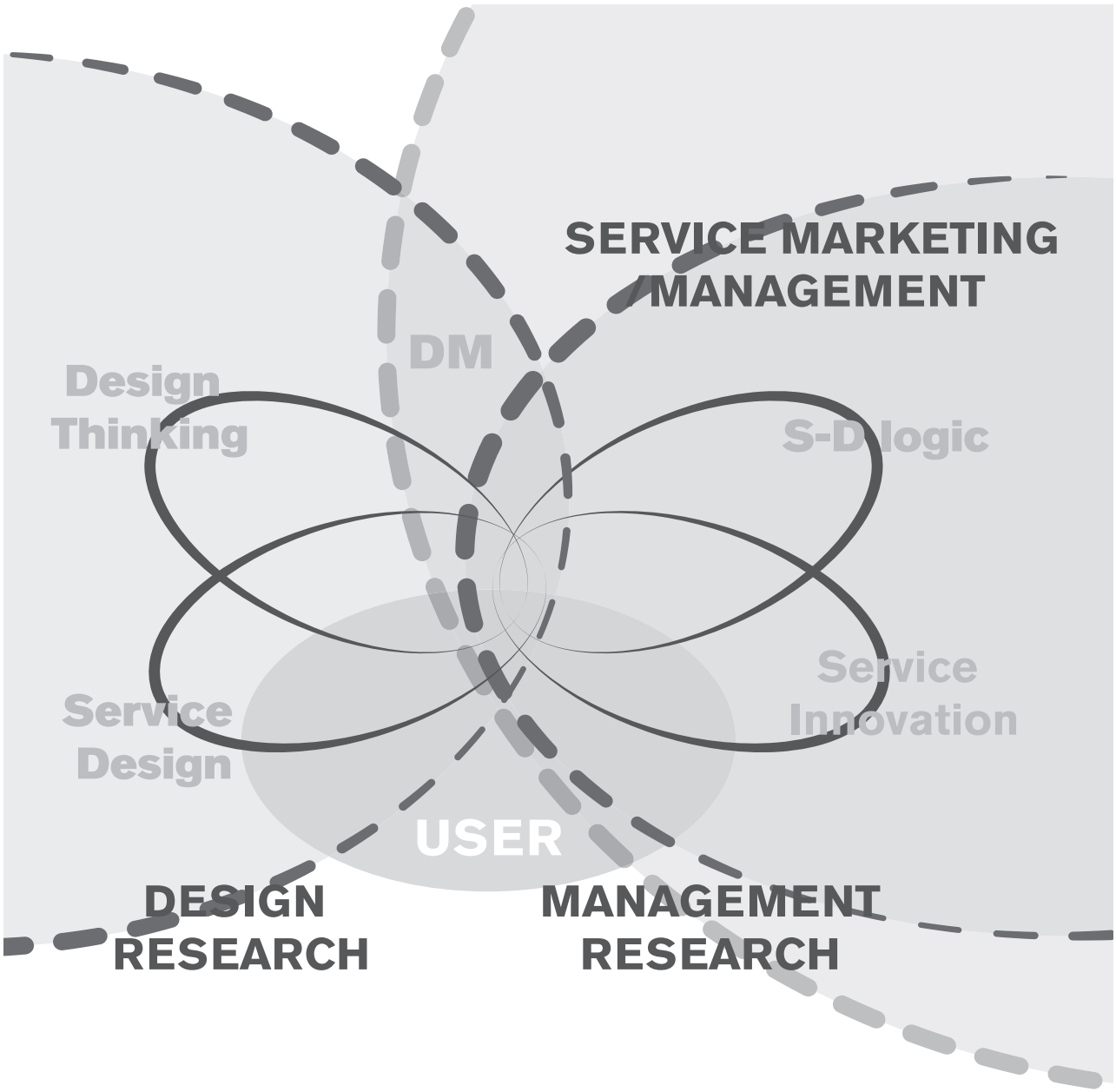
What? The design object of service design is increasingly described as transformation, which may be on an individual, organizational or societal level. Further the focus is moving from seeing the outcome as products or single interactions and instead understanding service as value creation.

However synthesized, these different characteristics bring my attention to some of the tensions of practice and perspective. I further discuss how these different characteristics shape my understanding of the double but still connected nature of service design in the next section.

SUMMARY

In this chapter I presented the historical evolution of a service design discourse, from its practitioner and academic roots in Germany and Italy, and a corresponding perspective on service as products and as interactions. My main emphasis was on developing a framework that synthesized descriptions of service design practice in the literature through posing three questions, *Who* designs service? *How* is service designed? and *What* is designed? See Figure 4.

The answers to these questions have been combined in a model containing *five* characteristics: 1) interdisciplinary, 2) visualization & prototyping, 3) participatory, 4) transformation, and 5) value creation, as shown in Figure 5. I also discussed the specific relation between service design and service marketing/management research and practice. As presented in previous chapters, users and their involvement in the development process have a central role in both design and service marketing/management discourses. The next chapter presents an interdisciplinary literature review of the user's involvement.


SERVICE MARKETING
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CHAPTER 6

User involvement in service management and service design

As concluded in the previous chapter, service design is carried out inside service organizations by trained designers from different disciplines and/ or by people with other backgrounds. The different perspectives held by the various participants meet around the user/customer as a central focus. Reading the literature in the bodies of knowledge underlying these perspectives, I have come across a spectrum of approaches towards the users and how to manage relations with the users. However, user-driven (Rosted, 2005), or lead-user approaches to innovation (von Hippel, 1986) will not be further discussed since these approaches are directly aimed at users bringing their developed solutions to a specific company.

Instead, in this chapter I present an interdisciplinary literature review focusing on the relation to the user rather than the methods or processes. I treat user centeredness in the broader design perspective, and then narrow the perspective to focus on service design and co-creation. I then move on to user involvement in service marketing/ management, and discuss relations between user, service design, and service marketing/management. Finally, I summarize the chapter.

USER CENTEREDNESS IN DESIGN PRACTICE

The design-based literature discusses to what extent and in what ways the designers and users should be close to one another. The umbrella term *User Centered Design* covers a broad spectrum of approaches that in general is divided by the methods and tools used for interacting with the users (e.g., Hanington, 2003; Rosted, 2005).

The main methods in user-centered design aim at meeting the needs of the user by collecting, analyzing and interpreting data. The key issue is to find out different ways to approach users' needs, dreams and expectations, whether

recognized or unrecognized (e.g., Norman, 1998; Rosted, 2005). The methods cover both information gathering activities and activities with the intention of idea generation. The initial research phase in a design project includes a spectrum of methods with a direct or indirect involvement of users, such as direct observations, videos, tests with prototypes and other existing products or services. Most of the literature focuses on user involvement in the development of physical products. A multitude of frameworks have been developed, depicting the degree of users' involvement in relation to the designer's involvement (Pals, Steen, Langley, & Kort, 2008), whether the designer or user is actually leading this process (Sanders & Stappers, 2008) and the methods and understanding used to present the result (Hanington, 2003).

Human Centered Design (HCD), proposes a broader perspective than 'user', implicitly pointing out a particular use situation. Hanington (2003) preferred this term, pointing to design's closeness to human needs and concerns. Krippendorff, (2006) emphasizes HCD as a perspective that takes the criteria from the stakeholders' lives and makes them available to the larger community through the design process. Krippendorff (2006) takes an interpretive stance, describing the design activity as a meaning creating activity, starting from the context and situation of the stakeholders.

Approaches where the designers and other team members physically move out into the users' context for information gathering are described as empathic design methods (Leonard & Rayport, 1997), or experience prototyping (Buchenau, 2000). The designers then explicitly use their own empathic capability for gathering information about the users situation. Another way to reach out to the context of the user is by adopting different types of probes and/or tool kits that allow the users to collect the information themselves while specifying certain themes (Gaver, Dunne, & Pacenti, 1999; Mattelmäki, 2006). The toolkits may consist of diaries, cameras, postcards and so on for gathering information; the design team then analyzes and interprets the gathered information.

All the relations between designer and user mentioned above involve closeness and empathy, but a distance remains between the user and the designer. The designer moves into the context of the users for better understanding of the user's context. The relation can be described as in Figure 6.

The design object emerges in the relation between the user and the designer but it is the designer that uses design expertise to develop the final result. Relating to Krippendorff (2006), this is in the design practices' meaning creation made through interpretation and then set on stage through visualizations.

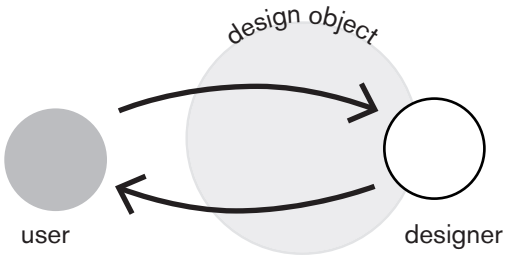


Figure 6. User-designerrelation in UCD practice.

No matter how close these methods get to the user through research and empathic skills, Sanders and Stappers (2008) describe them as designing *for* users rather than *with* users. The designers are the design experts that move into the context of the user, who is the expert on his or her life that is the object of study, in a particular situation. The design practitioner conducts the main part of the design work; if there are some kinds of co-creational activities, they are to be regarded as inspiration than actual design proposals.

SERVICE DESIGN AND THE IDEA OF CO-CREATION

In the first issue of the service design magazine *Touchpoint*, service designer Lavrans Løvlie states:

> A key element in the practice of product design is to study people and how they use things as a starting point for the creative process. Since users of services are essential parts of the "service factory" (or more appropriately speaking, the "service ecology") it is even more important to involve them deeply in the design process. (Løvlie, Downs, & Reason, 2008)

Unlike designing a product, designing services implies a loss of control. The designers involved can only control exactly how the service will be realized to a very small extent. This process involves the integration of knowledge, skills and technology of the firm and its employees as well as the person that is paying/using/consuming that service. Understanding this involvement has given rise to a renewed interest in co-creational approaches of involving users. The literature within the service design field concerned with user involvement stems mainly

from interaction design and participatory design (Greenbaum & Kyng, 1991), where distributed power and empowerment have been strong movements. User-centered design approaches from interaction design (Holmlid, 2009b; Miettinen & Koivisto, 2009) are often related to this approach.

Cooperative design, which by definition means empowering users to participate and cooperate with designers, "breaks down the old rules of the game" (Bødker, Greenbaum, & Kyng, 1991:152). The cooperative design approach begins by trying to create an environment where users and designers can actively view the use situation. Designers should not have to wait until the final act to know whether or not the system will fit the practice of the users (Bødker, et al., 1991). Sanders and Stappers (2008) frame this as designing *with* users. Here everyone is seen as the expert in his or her respective domain and his or her respective competence is used throughout the process.

In practice we can see a particularly strong tendency to use these sets of tools and methods in projects related to the public and social sectors (Holmlid, 2009b). The role of the designer changes, and instead of controlling the outcome the designer's role can be described as leading and facilitating the activities, as well as producing material artifacts, and thereby establishing the situation where the interactions take place (Han, 2010).

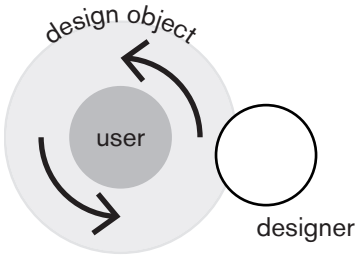


Figure 7. User-designer relation in Co-creation practices.

As described in Figure 7 the design object is a joint production between the designers and the users, the rhetoric claims that only the users produce the design object. These involvements have clear emancipatory goals and the designer's role is to facilitate the process of designing rather than doing the design work in a direct way (Sanders and Stappers, 2008). Han (2010) argues for

the designer as a facilitator and in addition playing an important role in establishing the community that will ultimately use the service.

However, the outcome, as the service or proposition of service, is created by the users/stakeholders involved in the context of the situation. People as empowered individuals are central in this approach and the final design emerges around and through people's interactions on the set stage, rather than in interaction with the designer. One important point is that the desired design object is transformation and value creation, as discussed in the previous chapter on service design. This constraint creates a situation the designer cannot control in the final execution. However, the aim for user-involvement activities is to create something together with the people involved in the realization, which induces some kind of change and experience that they can bring with them.

Design Driven instead of User centered?

The proposition that the designer should not be close at all to the users in order to achieve innovative solutions stands in contrast to the user involvement view. For example, Don Norman, formerly an enthusiastic advocate of user centeredness (Norman, 1998; Norman & Draper, 1986) in the tradition of interaction and experience design, recently argued against close interaction with users for reaching innovative results (Norman, 2010). Instead he endorsed the 'tinkerers', people who work technology themselves in new ways.

Using a similar argument, but adding meaning creation, Verganti (2003, 2008) argues that design is making sense of things. He is influenced by Krippendorff's thoughts on designers' practice as interpretation (Krippendorff, 2006). However Verganti (2009) specifically distances himself from the underlying premises of HCD in the concept of *design-driven innovation* (DDI). In his opinion, the designers should take and reclaim their expert position along with other experts in the network. Further, the designers propose solutions *to* the customers rather than co-creating solutions *with* customers, as shown in Figure 8.

The concept of design-driven innovation suggests that rather than co-creating solutions with the customer, the firm and designer should propose *new meanings* to the market. The innovation of meaning, Verganti argues, is not possible when in close interaction with the users. Instead, the designers should take an interpretative and propositional role rather than 'merely' functioning as the facilitator between the users and the company.

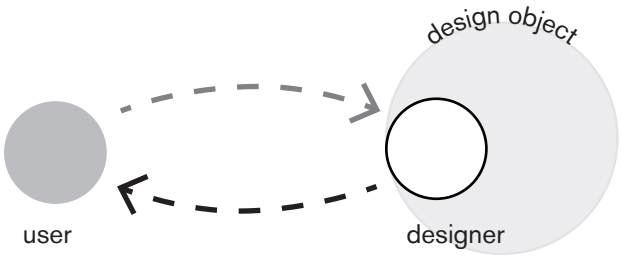


Figure 8. User-designer relationship in DDI.

Most important, the design-driven innovation perspective moves the focus from technological or functional innovation to innovation of meaning, which in my opinion connects well with understanding the proposition of service design, considering the focus on value creation in context discussed in Chapter 3. However, most examples of design driven innovation are related to product design, although the concept is supposed to include service design. As an example, the combination of iPod and iTunes is one of the cases mentioned as innovation in meaning rather than functionality (Verganti, 2009). Surely, Apple as a case contrasts with most descriptions of how successful business and innovation is carried out.

I think there is an interesting tension between the descriptions of service design as co-creational with users and the ideas of innovation in meaning requiring distance from the users. This tension is further explored in *Paper II*.

CUSTOMER INVOLVEMENT IN SERVICE MANAGEMENT

The approaches to users and customers' involvement are as diverse in the discourse of service marketing/management as they are in the discourses of service design. However, the service marketing and management discourse, with its roots in management rather than design theory, tends to focus on other aspects. Here the discussion is connected to the ways customers should be involved with the firm and what kind of involvement leads to business success (Alam, 2002; Magnusson, Matthing, & Kristensson, 2003; Matthing, 2004). The main interests in these studies are innovativeness, success factors (e.g., Bretani de, 2001) and barriers related to customer involvement. The literature describes how

customer involvement can be achieved at different levels and stages of development (Alam, 2002; Sandén, 2007) or the modes of customer interaction in a business–to-business setting to reduce the fuzziness in the front-end of development (Alam, 2006). In a study of customer interaction in the fuzzy front end of new service development, Alam (ibid.) argues that the benefits of user involvement are shorter development cycle, and the opportunity for evaluating several ideas and concepts. He further identifies as problematic the risk of listening too closely to customers, conflicting objectives between customers and managers, and the difficulty of finding the right customers. The literature covering the marketing orientation recommends staying close to the customer, even to the extent that the customer is "king", but historically the benefit of customer input in relation to business success has also been questioned (Bennett & R. G. Cooper, 1981; Christensen & Bower, 1996).

Some comparability studies have looked at users' innovation capabilities compared with the companies' product developers. (Kristensson, Gustafsson, & Archer, 2004; Magnusson, 2009). Innovative as they might be, the question still remains, how will the actual implementation of the ideas within the organization take place, and how will the ideas be realized as actual value-propositions. This has proved to be quite difficult since the users' ideas tend not to be directly applicable to the logics and structures of the company in question (Matthing, Sandén, & Edvardsson, 2004). However, there are also scholars who discuss the risk of too close integration with the customers. Arguments here are that the customers would be contaminated with the firms' logic and lose their expertise in their own situation (Magnusson, et al., 2003), thus being more loyal to the firm than to themselves.

Although there are studies where the users innovate in their own context (e.g., Magnusson, et al., 2003), as mentioned above, it is more typical to bring the customers *into* the company's context where the company's logic directs the preconditions for the interaction than to *go out* into the customer's context. In sum, the relationship can be described as in Figure 9, the users are drawn into the firm's context, and the firm's representatives sparingly move out into the context of the user.

With the increasing focus on the co-creational character of value creation, the customer's role becomes more important. Understanding the contextual nature of value creation demands approaches other than traditional ones, specifically in relation to integration of knowledge and skills (Ostrom, et al., 2010). Prahalad and Ramaswamy (2000; 2004) were among the first to discuss another

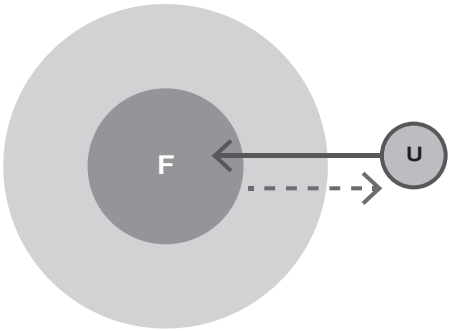


Figure 9. Traditional firm user relationship in Service marketing/management.

way of interacting with customers by arguing that the traditional way of doing customer research was not good enough. The view that information goes from the company towards the customer, with the market as the target for the offerings needs to change (Prahalad & Ramaswamy, 2004). Instead firms really needed to go out in the customer's context. In line with this thought, Jaworski and Kohli (2006) suggest reframing the 'voice of the customer concept', proposing going from hearing the voice of the customer to co-creating the voice of the customer. They propose that 'the firm' engage with the customer for purposes of mutual learning of each party's needs and capabilities, and suggest a set of indicators for successful co-creative dialogue. The firm is treated as one homogenous entity and the customer as the other party, whether it is B2B or the end consumer. Although who from the firm that should engage in this dialogue or how this should be done is not discussed. Another view proposes that value co-creation should be seen as represented in three value creating processes, the customers, the suppliers and the encounter process (Payne, et al., 2008). All descriptions of co-creation consider mutual learning and knowledge to be essential core competences.

Co-creation in the service marketing/management context is most often referred to as the actual realization of the service and value-in-use, not as co-creation in the service innovation process. Witell et al. (2011) proposed *co-creation for others,* and argue for an extended understanding of co-creation that includes the process as well as the usage. They present a study in which they

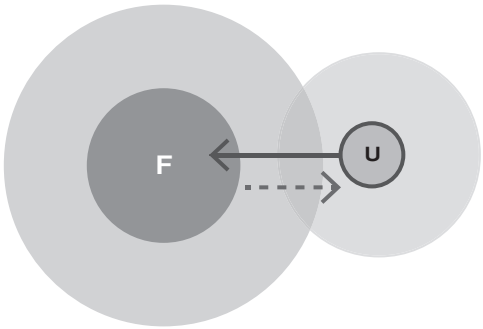


Figure 10. Co-creation firm/user relationship in service management.

found the ideas developed through proactive market research techniques, that is, *co-creation for others*, to be more innovative than those derived from more reactive market research. The co-creation method described as a proactive market research technique bears little resemblance to the design based co-creation described in the previous design section. The *co-creation for others technique* was in terms of individuals documenting, noting and sending in their respective experiences and ideas – to be judged for their value and estimated innovativeness by a jury. In design terms, co-creation connotes a process where the people involved in the creation of the ideas are central in the evaluation and further development of the ideas.

Although there is an increased interest in how to understand the customers and their context, the approaches are dominated by the firm's logics. The firm's representatives interpret and judge the material from the activities mentioned above. This interaction can be seen as in Figure 10: an increased closeness and openness to the customer's context, but in the overlaps where these two meet, the firm's logic and context dominates the interpretation.

It is worth noting the lack of attention given to the development of the design objet itself. Instead, the important points are where the initial idea came from and to what degree that idea can be seen as new or not, or in what ways further integration can be made in the organization. Not discussed in any depth are ways in which the firm, the employees, and the users interact in the develop-

ment of the new service. In short, descriptions of specific tools and methods of how to involve users in new service development are lacking.

RELATIONS OF SERVICE DESIGN, SERVICE MANAGEMENT AND THE USERS.

In service management the direct relation between the customer and the firm is discussed, and whether the relationship leads to more incremental or radical solutions and thus increased business success.

In reviewing the design literature, there is a clear focus on the relation between the designer and the user, and their individual or joint relation to the design object. The strengths of the user/human centered design approaches, whether closely co-creative or more distant by relying on empathic abilities, are the focus on the individuals' skills, knowledge and engagement. However, the relation to the commissioning firm is seldom taken into account. In an exception, Han (2010) takes a stakeholder perspective and studies the designer's role in managing these stakeholders involvement.

In the design discourse, the rational for the cooperation is a subjectively judged, good, valuable, and sustainable design object. In the service management discourse, the rational for cooperation is innovativeness and business success, preferably measured in figures. The differences underpinning the two discourses make it difficult to construct one single model with united methods and approaches.

Instead we can see the relationship between them as a dichotomy with the user in between (see Figure 11). The different views of how to involve users

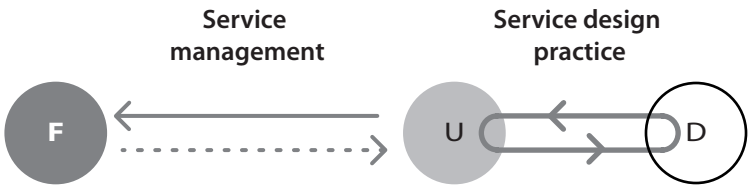


Figure 11. Relationships discussed in literature Firm-User-Design.

provide different perspectives each with their own strength and weaknesses. In the service management literature the description of the relationship with users is carried through in line with the firms' logic, the firm and its representatives sparingly move out in the users context represented with a dotted line in Figure 11. In descriptions of service design practice there is a more continuous relationship between users and designers during which the ideas grow and develop.

In the service management literature reviewed here the focus is on early idea phases in the development process, that try to find new ways to incorporate new ideas from users and also to understand how new this idea is. However, little is said on how or if user involvement continues in the further development process. Further, because in practice there are always people involvied other people, the entity "firm-user" becomes difficult to handle, in m view. To my understanding this is an instrumental view of the people being involved that merely strengthens descriptions of an inside-out perspective. Moreover, any involvement is carried out in line with the companies' norms. In addition, what is said about the design object or the service to be developed is quite limited to innovativeness and business success, with little attention given to how this object is taking shape, the considerations taken, and so on.

The service design discourse, on the other hand, is interested in how the human perspective is realized in the development of a new service. This perspective implies that the user should feel empowered, having control and ownership of the situation and information. However, the discourse lacks discussion how this empowerment is integrated with the firm that will ultimately realize the service. Further, the innovativeness is rarely discussed, instead, the focus on empowerment and fulfillment of need in a specific situation.

The two different bodies of literature describe fundamentally different understandings of what co-creation is and what it means. In service marketing and management co-creation in the development process is understood as any kind of active engagement with users, for example, where users develop ideas, more or less finalized, and hand them in to the company for further development. In contrast, in design co-creation implies a close joint activity where users and designers work together in developing new solutions.

In the interdisciplinary literature review in this chapter I conclude that either relations between the firm and the user or relations between the designer and the user are discussed.

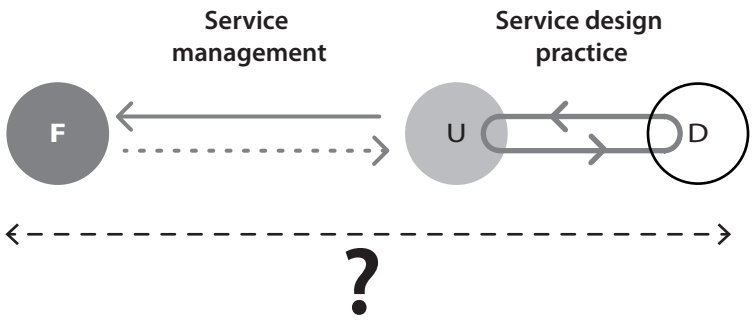


Figure 12. Lack of research taking holistic approach.

A holistic perspective is rarely taken which identifies a research gap see Figure 12; this has also been noted by Holmlid (2004).

The relationship between management and design is discussed within the discourse of design management as presented in *The design management area* pp. 33-45), but there the user/customer is not really present. Several researchers (Johansson & Svengren, 2008b; Martin, 2007, Cooper & Evans, 2006) discuss differences between the designers' practically-developed methods and marketers' practice/theoretically-founded methods, and argue that the differences are of interest and should be further addressed. This chapter has further developed the understanding of some of the aspects and the underlying assumptions.

SUMMARY

In this chapter I first described and conceptualized the relation between user and designer in different approaches to involvement in the design discourse. I showed that how and where the design object emerges is impotant in this body of literature. Next I described user/customer involvement in service marketing and management and noted how the focus on, and interest in, the users' role and involvement increased as emphasis was put on understanding service as co-created value. However, I concluded that the relation between the firm and user takes place in line with the firm's logic and norms. Also, this literature focuses on how innovative an idea is judged to be, and to what extent it relates to business success.

The chapter ended with a conceptualization of the relationship between firm-user and designer-user as providing opposing perspectives on user involvement. This conceptualization built on the different aims of involvement in the respective discourses, that is, either concern for a design object that fulfills and empowers the users, or for a way of enhancing the profitability of the firm.

These perspectives together cover different aspects of what is needed for a successful service. In addition , I paid attention to the different assumptions that lie behind the diverse approaches to user involvement related to the development of service.

CHAPTER 7

Summary of appended papers: presentation, contributions and development of thesis

In this chapter I first present the two appended papers and state their contributions and limitations. Then I relate the papers to my research questions and summarize how they contribute to the development of this thesis. I further summarize the papers in a table to give a quick overview. This chapter is intended as a platform for the discussion that follows in the next chapter.

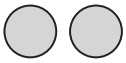
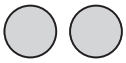
PAPER I: COMPARING DESIGN THINKING WITH SERVICE-DOMINANT LOGIC

Presentation of Paper I

The paper discusses Design Thinking (DT) from two perspectives; the perspective brought forward in the management and business press and a design practice based perspective, and uses the design discourse notion of DT (elaborated on pp. 41-43) Further, the service-marketing concept of Service-Dominant logic (S-D logic)(Vargo & Lusch, 2004) is presented as a perspective on value creation, together with the 10 foundational premises of the S-D logic. The paper emphasizes understanding value as value-in-use as specifically interesting for design practice.

Five core concepts are found in both DT and S-D logic, and deemed interesting for an exploration of overlap in meaning: *Value, Co-Creation, People, Actors and Networks,* and *Experience*. The overlap is explored in three degrees: Full overlap, Somewhat overlapping, and No overlap. Even though the concepts are present and centrally important in both perspectives, none is found to have a full overlap. However, partial overlap is found in the understanding of value, networks and experience. No overlap is found in the understanding of co-creation and people, see Table 2.

It is important to note that the importance of people as users and actors in the creation of service and value is central in both S-D logic and DT.

CONCEPT	DEGREE OF OVERLAP S-D logic/DT	COMMENTS
Value		The concept of 'value' is not explicitly treated in the design literature, the focus is rather on if the output is perceived as meaningful by the user. As such there is an overlap in meaning but not in vocabulary.
Co-creation		Used with different meanings and at different stages.
Actors & Networks		The most prominent overlap is found in the understanding of complexity and networks.
People		S-D logic defines customers and beneficiaries. DT defines users as humans in context.
Experience		The subtle experience is emphasized in both S-D logic and DT. Within DT the understanding of the experience is explored to a higher degree.

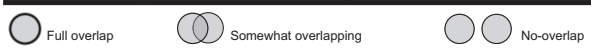


Table 2. Degree of overlap DT and S-D logic.

Contributions of Paper I

This paper bridges the discourses of research in design practice and contemporary marketing literature. It introduces the marketing perspective S-D logic to the design discourse; this perspective is judged relevant since it represents an alternative view of value than the dominant value chain perspective. By so doing I propose that understanding value as contextual and in use is in line with the understanding of value in design and that this opens up 1) a better understanding of the contributions of design practice, 2) an stronger argument for designers in describing their contributions.

This paper also proposes seeing service as a perspective of value creation as proposed by S-D logic, and therefore relevant for design practice at large, not only for the design of services. Finally, the paper suggests that by understanding

these two concepts as complementary, the practice based tools and methods of design thinking can in many ways be seen as an application of S-D logic.

Limitations of Paper I

Both design thinking and S-D logic are fuzzy concepts, difficult to define and the understanding of them is changing. DT might be seen as an approach, and S-D logic is often described as a perspective, maybe developing towards a theory of the market. Design thinking has been considered as a hype that might already have had its peak. S-D logic increasingly attracts scholars from various fields that explore implications of this perspective. The implications of co-creation and the networked value creation proposed are specifically explored in service innovation literature.

Exploring connections between these types of concepts can cause problems and might open up to more questions than they answer. Is it at all possible to compare a practice-based concept as design thinking with a conceptual construct like S-D logic? However, the attempts made in this paper show how these differences can be used productively.

Making conceptual comparisons will always be an intellectual exercise. Just as in the paper I critiqued S-D logic for being a conceptual construct, this framework can be criticized for the same reason. Whether the suggested complementary relation holds can only be answered through empirical investigations, such as for example case based research.

PAPER II: THE MEANDER MODEL – A METAPHOR FOR USER INVOLVEMENT IN SERVICE DESIGN

Presentation of Paper II

In this paper service design practice is presented through a literature review, and emphasizes the co-creational aspect of service design. It identifies a gap in connection with contemporary innovation theory. The concepts of design-driven innovation (DDI) (Verganti, 2008) and user-centered design (UCD)(more developed in *User involvement in service design and service management*, pp. 73-81) in a service design/innovation context are discussed conceptually and a tension between these concepts is identified. There seems to be a conflict between the descriptions of service design as inherently co-

creational and the proposition of design- driven innovation that users should not be involved too closely. The designers' relations with users and their involvement are empirically explored through an interview study with designers of service. All but one of the designers (who is a graphic designer) has trained as an industrial designer and worked in that area.

The relation is found not be polarized, as suggested by design driven innovation, but to be dynamic and moving between the two concepts in a meander-like movement, see Figure 13. The concept of *The Meander* is thus introduced as a metaphor for the movement between these theoretically opposing perspectives. The metaphor sheds light on designers' understanding of involving users as crucial in the development of new ideas and design concepts. However, it is also fundamental for the designers in this study that phases of the process are design driven.

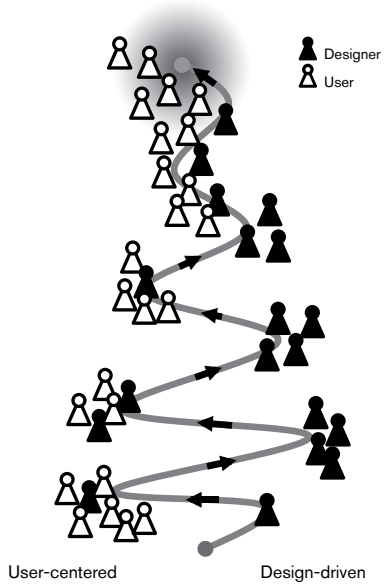


Figure 13. The Meander Model

Contributions of Paper II

This paper contributes by broadening the conceptual base for the construction of the service design discourse. Historically descriptions of service design are based in interaction design practice and research (see e.g. Blomkvist, et al., 2010). This paper brings forward industrial design practice and integrates this perspective into the description of service design. Further, the paper integrates service design research with innovation theory from both the contemporary design and service literature as requested by Maffei et al. (2005). This conceptual coupling of the paper sheds light on tensions between these different research streams and their potential discrepancy with practice.

By proposing the metaphor of *The Meander* the paper presents a description of designers' relations with the users who encompass both UCD practices and

DDI practices in service design. This proposition nuances the dominant description of service design as being co-creational throughout the process. At the same time the metaphor highlights the complexity in service design by including both these approaches. The paper also highlights the importance of understanding the role of design practice in relation to users and the development of a new service. The paper further suggests meaning creation takes place in the design driven phases rather than in the user centered phases, possibly through the designers' aesthetic practice.

Limitations of Paper II

The paper includes both a conceptual outline and an empirical investigation. The empirical material can be criticized for having a limited sample; there are only 8 designers represented, but all but one have an industrial design background. Although the number of participants is small, the responses were regarded as coherent and comprehensive in relation to the theoretical framework. The interviewees were mostly industrial designers, implying that the results only hold for when the designers involved in service design have an industrial design background, or based their process in industrial design. This might be the case; since the study does not compare different approaches. This is, however, an interesting finding since it contradicts what has been said about service design practice as being inherently co-creational. The study suggests that designers based in industrial design practice conceive service design in a different way than the general description.

The study outlines the larger movement between stags of UCD and DDI, however it says very little about how these designers relate to the users and what takes place in the UCD phases of the process. Similarly, very little is said about what actually happens in the DDI-oriented stages. The paper suggests that in the DDI stages there is a strong relation with creation/innovation of new meaning as proposed in DDI, but what actually happens here remains unknown.

RELATION OF PAPERS AND DEVELOPMENT OF LICENTIATE THESIS

The papers are situated at different areas in the theoretical landscape constructed in the previous chapters.

Paper I is situated at the intersection of two research areas: design desearch and service marketing/anagement with their respective concepts, design thinking and S-D logic, see Figure 14.

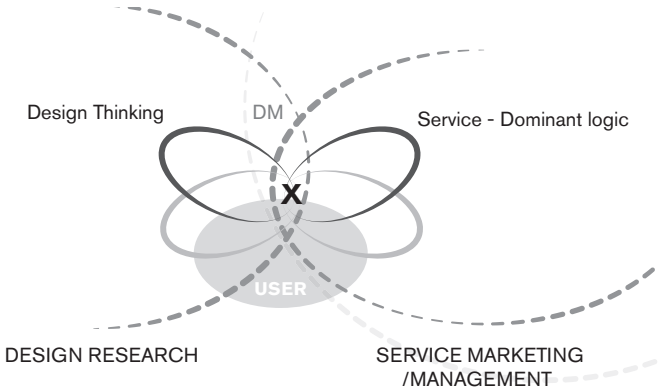


Figure 14. Position of Paper I in theoretical landscape

This paper responds to the first research question:

1) How can the relation of the two concepts present in the design and the service management discourse respectively: Design Thinking and Service-Dominant logic be described?

Paper I asserted that *people* and *co-creation* are core in both concepts, however the paper also asserted that there are diverging understandings of the two concepts. This led to the formulation of research question number two and three:

2) In what ways are the involvement of users and customers conceptualized in service design and service management respectively?

3) In what ways are co-creation described and understood in service design and service marketing discourses respectively?

These gaps are explored in *User involvement in service design and service management* pp. 73-81; research question number three is also partly explored in *Paper II*, and further treated in the discussion chapter following this one.

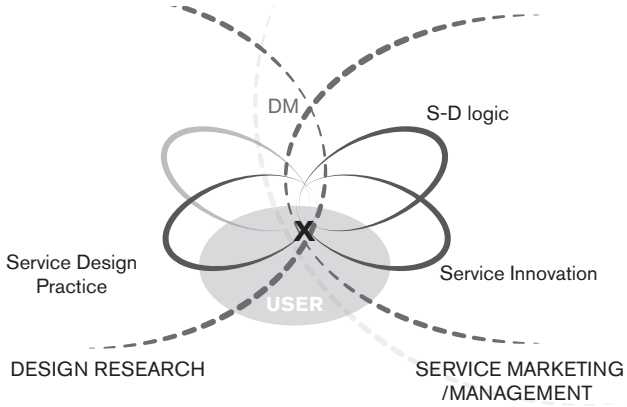


Figure 15. position of Paper II in theoretical framework

Paper II is situated in an area of several overlapping research areas, in particular the intersection of service design practice, theories of user involvement, S-D logic and service innovation, see Figure 15.

When I explored this intersection, tensions between different concepts emerged; the descriptions of service design as co-creational and the central focus of customer roles in service innovation seemed to contradict the concept of design-driven innovation (Verganti, 2008). The fourth research question was then formulated as:

4) How to reconcile Verganti's notion of design as meaning-creating activity in design-driven innovation, with a service design perspective that puts the user in the center?

Paper II explored explicitly the fourth research question through a conceptualization of the above-mentioned areas and an interview study. This paper contains the only empirical work in this thesis and thereby also connects to service design practice in a direct way. I have, however, chosen to keep the work I present in this licentiate thesis conceptual rather than empirical.

TABLE OF APPENDED PAPERS

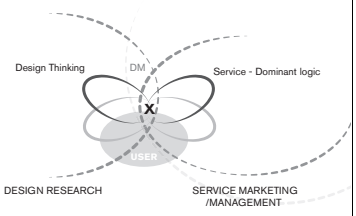
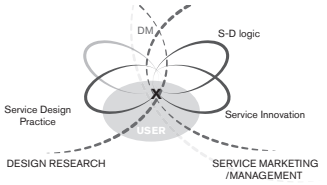
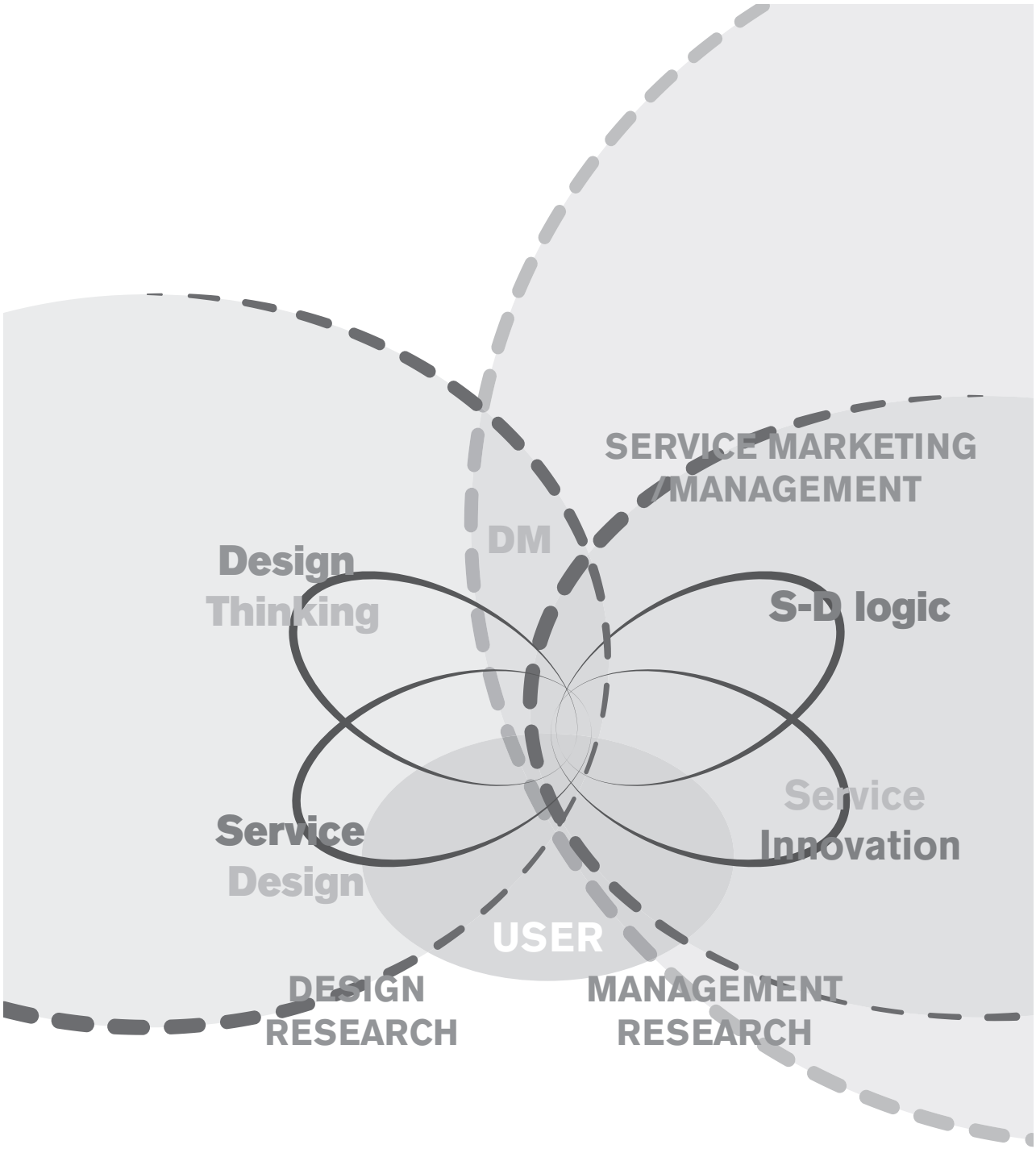
	Paper I	**Paper II**
Title	Comparing Design Thinking with Service Dominant Logic	The Meander Model – a metaphor for user involvement in service design
Type	Journal Article	Conference paper
Publication status	Published in Design Research Journal (2) 2010	Published in the Proceedings of the EAD9 Conference 2011.
Research approach	Conceptual	Conceptual, Interviews
Findings	Five concepts are identified to be central in both Design Thinking and Service Dominant logic. The paper explore to what extent these concepts can be understood as overlapping. The understanding of People and the concept of Co-creation is found to have very little or no overlap. However three concepts are found to be overlapping in meaning; Value, Actors and Networks as well as the understanding of Experience. The paper suggests the characteristics to be complementary rather than overlapping.	The paper discusses the concept of Design Driven Innovation in relation to Service Design with focus on the users involvement. Service innovations differ from product innovations and the role of the user is emphasized in the literature. A model describing a spiraling movement between close user involvement and design driven context is proposed – *The Meander.* This model nuances the description of how users are involved in the design of services.
Research Focus		

Table 3. Summary of appedended papers


SERVICE MARKETING
MANAGEMENT
DM
Design
Thinking
S-D logic
Service
Innovation
Service
Design
USER
DESIGN
RESEARCH
MANAGEMENT
RESEARCH

CHAPTER 8

Contributions & discussion

The relation between service design and service marketing/management has been the main focus of my interest throughout the work with this thesis. This relation as a research area of interest has been spelled out explicitly by a number of researchers, including Kimbell (2010a), Ostrom et al., (2010), and Sangiorgi (2009). Further, this work has indicated that research viewing design from a service perspective and service with a design perspective is needed (Segelström & Holmlid, 2009).

The academic service design discourse has focused on either arguing for the existence of a new design discipline, or on discussing specific tools and methods used by this new design practice. There has been little focus on theoretical work, something that was addressed and argued for by Sangiorgi (2009) and Blomkvist et al., (2010). In an overview of priorities for service research Bitner (Ostrom, et al., 2010), posed the following question for further research, *"How might 'design thinking' and methods be used to inform traditional, analytical approaches to service development?"*

My work in this licentiate thesis seeks to address this omission of theoretical work. My intention in highlighting and discussing my contributions is to contribute some answers to Bitner's question.

The main focus of this thesis is, as mentioned earlier, the relation between the service design discourse and the service marketing/management discourse. They are both concerned with, and have a pronounced focus on, user's involvement. By adopting a S-D logic perspective, the role of the users, their knowledge and contexts become central to understanding the firm's value creation. Subsequently, capabilities that include competence in understanding the user become increasingly important in the firm's development processes. If the firm accepts the S-D logic perspective, space is opened up for a more central role for design practice (in relation to the previously more limited roles in the final phases of development processes).

This thesis suggests that service design practice is exactly the type of competence that can both complement and push the realization of a S-D logic perspective. I argue that the discourse of S-D logic in marketing/management and the

discourse of service design are complementary approaches to user's involvement and co-creation. While the design discourse attends in detail to the individual's context and relation to the design object, the service marketing/management discourse attends to the relation between the user and the firm from an internal business perspective. In addition, this thesis identifies five characteristics of service design practice that highlight its interdisciplinary character and the methods used, and proposes the 'design object' of service design to be transformation and value creation. Finally, service design practice is understood to be a continuously repositioning activity where the methods and tools used in this practice drive a continuous change in perspective, from, for example, specific service encounters to understanding value creation in its complexity.

ADOPTING A SERVICE LOGIC PERSPECTIVE: IMPLICATIONS FOR SERVICE DESIGN PRACTICE

I have identified two important concepts in the intersection of design and service marketing/management: 1) Design thinking, understood as a conceptualization of design practice and 2) S-D logic, a perspective on creation of value as situated and co-created (Vargo & Lusch, 2004). Both the concept of design thinking within management and S-D logic within service marketing emerged this side the millennium and have generated much discussion in their respective discourses. Furthermore, they are both concerned with value creation: design thinking through the rhetoric of innovation, and S-D logic by proposing a shift from viewing value as exchange and accumulated value to viewing value as co-created in use. A S-D logic perspective implies a shift towards understanding the customer's experience and context as the core of the firm's offerings, instead of the product or service per se. The S-D logic has not only initiated changes in the marketing discourse but has also opened up a new "window of opportunity" for theoretical integration of marketing and design – and hopefully practical integration as well.

In contrast with the coupling of design and for example the sequential value chain, a service logic perspective opens up new space for design practice, instead of situating the practice in a limited phase or position. The change to understanding value creation as networked and co-created rather than isolated and sequential potentially brings design more deeply into development processes than before, specifically by acknowledging that design practice competence has an important role in understanding users and their contexts. This change fur-

ther strengthens the argument for what design can bring to the companies. My findings point at a potential closure between the converging epistemological perspectives discussed in Chapter 2.

From my theoretical discussion I propose that a service logic perspective might be more suitable perspective relating to design practice than previous exchange-based models. A service logic perspective has been integrated in the practice of service design firm live|work's practically-based framework 'Service Thinking' (Reason, Downs, & Lavrans, 2009), and can also seen in presentations of service design made by the Dutch service design company, Design Thinkers (Oosterom, 2011).

(SERVICE) DESIGN PRACTICE HAS POTENTIAL TO REALISE A SERVICE DOMINANT LOGIC

My thesis is grounded in the assumption that service in S-D logic, is regarded as fundamental in economic exchange and thus as a perspective on value creation. This is relevant for both service design and design practice at large, and also for understanding of value creation as such. However, leaving the discussion at this conceptual and highly abstract level might not aid the actual value creation process, or the way value propositions are developed for best fulfillment of a value co-creation situation. Such reasoning indicates there are apparent difficulties in the direct application of a S-D logic perspective, as I previously discussed.

I explored the relation between the two concepts, design thinking and S-D logic, to investigate if they could be complementary. I found that understanding of value, actors and networks and experience to be *somewhat overlapping*. However, there was *no-overlap* in the understanding of co-creation and people. This discrepancy in the understanding of these two concepts could be attributed to the different epistemologies underpinning design and service marketing/management discourse. Where design practice seeks meaning creation in relation with the people, users and others that are involved, service management marketing has traditionally been more interested in limited events, generalizations and figures. However, as mentioned, the emerging service logic perspective changes the way these situations could be understood, emphasizing the individual's own resources and context. In contrast to service marketing/management, design practice and discourse have a strong tradition of developing tools and methods for understanding these more specific situations. My first research question questioned how the relation of S-D logic and design thinking could

be described. The previous section discussed how S-D logic could function as a lever for moving design practice into the firm's value creating processes. In addition, my explorations suggest that design practice using designerly tools and methods might be a way to realize a service logic for the organization. Building on the above mentioned comparison there are two central aspects in development of service were design and management perspectives are diverging and hence complementary: The conceptualization of users' involvement, and the understanding of co-creation.

Different conceptualizations of users' involvement

User centeredness is emphasized as a central characteristic of (service) design practice and the mantra that the customer is king has long been repeated in marketing education. However, how this involvement is conceptualized differs within these two discourses, a distinction that becomes even more central in the understanding of value as co-created with the users/customers as in S-D logic. However, it takes time before the understanding, and the implications of understanding value as co-created seeps through in marketing and management practices.

The different epistemological perspectives underpinning the design and service management discourses affect the ways user involvement is carried through. Both the service design and service management discourse consider the relation with the users to be central; however, the relation of interest in the respective discourses does not contain the same actors.

The design discourse discusses the relations between the user, designer and the design object, whereas the service management discourse focuses on the relation between the firm and the user. The different perspectives are in line with the underlying assumptions in the respective fields. Design research and practice is concerned with the aesthetics and use of objects in relation to people, however, service management is interested in building profitability for the firm in question. This might seem to be the obvious answer to my second research question, but there are implications: Design research barely accounts for the integration of the firm at a firm level perspective. Instead, the individual stakeholders are representatives in the activities, which emphasize the individual and contextual perspective in design practice, as well as the empathic and intuitive character of design often brought forward.

On the other hand, service marketing/management discourse rarely discusses the role of the design object and how this emerges through the involvement of a multitude of people within in or outside the firm, but stays at *a level of the firm* perspective. Design practice might risk losing the business perspective by paying too much attention to the individual's value and meaning creation, just as service management risks the opposite. So, one can see service design as an outside-in perspective, taking the viewpoint in the user's context, whereas service management has a within-the-organization viewpoint, taking account of the internal strengths, weaknesses and potential barriers. Understanding that internal viewpoint is increasingly important from a design perspective since the service organization is part of the realization of the service and thus also part of the design object.

The service design discourse is also interested in the participation of stakeholders and how the design object is conceived. By connecting (1) service innovation through a S-D logic perspective (e.g., Michel, et al., 2008a), with (2) innovation as meaning creation (Verganti, 2008) and (3) the understanding of service design practice as inherently co-creational, something interesting happens: the dichotomy between either user centeredness or design drivenness can be dissolved. In its place I propose an intermediate: The Meander Model. This model emphasizes a movement between the user-centered and design-centered perspectives. This intermediate model recognizing a constant movement between outer positions then meets the reconciliation asked for in my fourth research question. By integrating the three research areas mentioned above, it also responds to a request from Maffei et al. (2005) for a merger between user-driven design approaches and contemporary innovation theory in service. To date there has been very little work done in this direction. The research presented in this thesis shows that integrating different perspectives is not without tensions. It demands re-definitions of present concepts like participation, co-creation, and user-centeredness. By making these connections, however, previous and often taken for granted assumptions about service design are made visible. Here in particular, I question the rhetoric connected to co-creation and participation.

Diverging understanding of co-creation

Co-creation, as earlier noted, is a central concept in both the service management/service innovation literature relating to S-D logic, and the design

literature. However, as brought to light in my third research question there might be diverging descriptions of this concept.

Two points in relation to co-creation of ideas and concepts are worth noting. First is the diverging understanding of co-creation in service design and management discourses, second is how co-creation is realized and used within service design discourse. The descriptions of co-creation do not only differ between the discourses, but there are also tensions in the understanding of co-creation within the service design discourse.

First, in service design co-creation is brought forward as a joint development activity or even process where designers and non-designers (users and other stakeholders) work together. The non-designers are seen as experts in their respective fields and often as even more knowledgeable than the designers about the situation at hand. In these descriptions the non-designers are also partners: designers, customers and employees work together as a team throughout the development phases including decision-making and evaluation (e.g. Sanders & Stappers, 2008). The descriptions of co-creation in the service marketing/management literature argue for a more limited activity where people – users and customers – are involved only in the idea generation process. This idea generation is not made in co-operation with the firm's employees but in the users' own contexts by the users themselves. Thereafter the users return their ideas to the firm. The users do not make part of the evaluation and decision-making process (e.g. Witell, et al., 2011). These differences in approach to co-creation are fundamentally related to the view of the users/customers.

Secondly, the dominant assumption within service design discourse is that co-creation is fundamental in a service design approach. This due to the participatory heritage in service design, and mainly present through designers with an interaction design background. That the main body of knowledge in service design discourse draws on interaction design practice and research has been argued by e.g., Holmlid (2007) and Sangiorgi (2009). This thesis suggests that designers with an industrial design background do not automatically share this dominant assumption. The designers that were part of the study reported in *Paper II* made clear that co-creation is not as fundamental in their practice. They also expressed concerns in how to relate to the user- generated material.

My research enriches the service design discourse by integrating industrial design practice as one of the design practices involved in service design. My early findings nuance the description of service design practice and opens up a place for a possibly more rich description of what actually happens.

This difference in understanding of co-creation in service design and service marketing/management shows one aspect of how a designerly approach to service design differs from a management approach. Anticipating this difference might facilitate the multidisciplinary teamwork of service design. This work also contributes to service marketing/management by showing a sibling discourse treating similar issues.

SERVICE DESIGN AS CONTINUOUSLY REPOSITIONING ACTIVITY

The characteristics of service design, discussed more in detail in Chapter 5, were summarized in a framework presenting service design as an interdisciplinary practice, using visualization, prototyping and participation as means for developing the design object seen as transformation and value creation. The framework was constructed from the three questions:

Who? How? What?, showing the importance of knowing *who* is using the *how* (tools, methods and approaches) assigned to service design and that this might have an impact on the *what*.

In this framework I have conceptualized the design objects of service design to be transformation and value creation. Emphasizing these characteristics allows a discussion about service design practice in relation to other design practices. In relation to common understandings of industrial design the character of the design object is probably what differs the most, since a common understanding is that the industrial design object is of a tangible character. However, the tools and methods used and identified as *How* characteristics in the framework relates strongly to the traditional practices in for example industrial design. Assumptions about and within the different disciplines involved in service design have an effect on the tools and methods used in the process. Visualization methods and practices are used for triggering participation, as is prototyping. Although the increased participation alters the role of the designer, it is not the participation per se that is the aim for the service design process; rather the participation is an efficient means to reach an effective design object.

In developing these five characteristics I have increasingly come to see service design as a "continuously repositioning" activity that moves between practice and perspective in a Mobius strip–like movement. I take the position that there is a need to describe design of service both as a design practice and as a perspective. I understand practice as the activity of designing, including the

assumptions (articulated and non-articulated) that direct the choice of methods and tools used, while I understand perspective as the way we see and understand at another level, which then has implications for what we do.

Service design as a practice relies on the understanding of tools and methods for developing service encounters and propositions. It is described as highly empathic and as using visualizing for reflection and communication throughout the process.

Service design as a perspective relies on the understanding of service as value creation, where distinctions between tangibles and intangibles are beside the point. Instead, the design focus is transferred to complex relations, interactions and actors. However, the implementation of a service logic demands explicit knowledge of how to develop and design products, communication, interactions, and so on, which all together form the intended context for value creation. Then service design becomes an approach for how to *organize* these different design practices with the aim of contributing to the value creation as such, and as an integration of tangible and intangible design objects. This suggests opening up to larger complexity and awareness of relations between actors and networks (see e.g. Kimbell, 2010b; Sangiorgi, 2010).

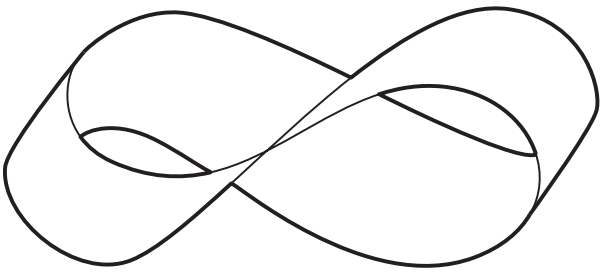


Figure 16. The relationship between service design as practice and perspective as an endless loop.

In my opinion, service design is not a question of choosing between seeing *service as interactions* or seeing *service as products* but a combination of the two. They complement each other and make it possible to bring in different aspects of designers practice, in different phases of the service design process. Instead, I am more intrigued by the relation between the service design as practice (as found in literature) and service design as perspective. The relation between the

two appears like the endless loop where the inside all of a sudden turns to be the outside, see figure 16.

At some point the characteristics of the practice – the inside – turns and becomes the outside – the perspective. Then the perspective, in due course, when implementation demands specific tools and competences, organizes the specific practice – the inside – to realize the desired context for value creation.

Until recently, the relation between the discourses of service design and service marketing/management has been quite distant. However, with developments in which service marketing/management takes a larger interest in the individuals' context and role in value creation, there is an obvious connection to design practice competence. On the other hand, design practice, and service design practice in particular, is showing an increasing awareness of the importance of organizational and societal aspects in design work. This thesis has contributed knowledge that enriches the understanding and relevance of service marketing/management for the design discourse and vice versa.

References

Alam, I. (2002). An exploratory investigation of user involvement in new service development. *Journal of the Academy of Marketing Science, 30*(3), 250-261.

Alam, I. (2006). Removing the fuzziness from the fuzzy front-end of service innovations through customer interactions. *Industrial Marketing Management, 35*(4), 468-480.

Alexander, C. (1964). *Notes on the synthesis of form* (5 ed.). Cambridge, Mass.,: Harvard U.P.

Alvesson, M., & Kärreman, D. (2007). Constructing mystery: empirical matters in theory development. *Academy of Management Review, 32*(4), 1265-1681.

Anderson, R. (2000). Organizational limits to HCI: Conversations with Don Norman and Janice Rohn. *Interactions, 7*.

Ashley, J. (2007). Working with c-level executives. *interactions, 14,* 29-30.

Bamford, J. D., Gomes-Casseres, B., & Robinson, M. S. (2003). *Mastering alliance strategy : a comprehensive guide to design, management and organization*. San Francisco: Jossey-Bass.

Bayazit, N. (2004). Investigating Design: A review of forty years of design research. *Design Issues, 20*(1), 16-29.

Bennett, R. C., & Cooper, R. G. (1981). The misuse of marketing: An American tragedy. *Business Horizons, 24*(6), 51-61.

Berry, L. L., & Parasuraman, A. (1993). Building a new academic field - the case of services marketing. *Journal of Retailing, 69*(1), 13-60.

Best, K. (2006). *Design management : managing design strategy, process and implementation*. Lausanne: AVA Publishing.

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing, 56*(April), 57-71.

Bitner, M. J., Ostrom, A., & Morgan, F. (2008). Service blueprinting: A practical technique for service innovation. *California Management Review, 50*(3), 66-94.

Blaich, R. (1993). *Product design and corporate strategy*. New York: MacGraw-Hill, Inc.

Blomkvist, J., & Holmlid, S. (2010, Nov). *Service prototyping according to service design practitioners*. Paper presented at the ServDes, The 2nd Nordic Conference

on Service Design and Service Innovation, Oslo. Retrieved from http://www.servdes.org/pdf/blomkvist-holmlid.pdf

Blomkvist, J., Holmlid, S., & Segelström, F. (2010). Service design research: Yesterday, today and tomorrow. In M. Stickdorn & J. Schneider (Eds.), *This is service design thinking* (pp. 308-315). Amsterdam: BIS Publishers.

Bødker, S., Greenbaum, J., & Kyng, M. (1991). Setting the stage for design as action. In J. Greenbaum & M. Kyng (Eds.), *Design at Work: Cooperative Design of Computer Systems* (pp. 139-154). Hillsdale: Lawrence Earlbaum.

Boland, R. J., & Collopy, F. (2004). *Managing as designing*. Stanford, California: Stanford University Press.

Boland, R. J., Collopy, F., Lyytinen, K., & Yoo, Y. (2008). Managing as designing: Lessons for organization leaders from the design practice of Frank O. Gehry. *Design Issues, 24*(1), 10-25.

Borja de Mozota, B. (1998). Structuring strategic design management: Michel Porter's value chain. *Design Management Journal, 9*(2), 26-31.

Borja de Mozota, B. (2003). *Design Management.Using design to build brand value and corporate innovation.* New York: Allworth Press.

Borja de Mozota, B. (2006). The four powers of design: a value model in design management. *Design Management Review, 17*(2), 44-53.

Borja de Mozota, B. (2007). A theoretical model for design in management science. *Design Management Journal, 3*(1), 30-37.

Brown, S. W., Fisk, R. P., & Bitner, M. J. (1994). The development and emergence of services marketing thought. *International Journal of Service Industry Management, 5*(1), 21-48.

Brown, T. (2008). Design Thinking. *Harvard Business Review*(June), 1-11.

Brown, T. (2009). *Change by Design: How design thinking can transform organizations and inspire innovation*: Harper Business.

Brown, T, & Katz, B. (2011). Change by Design. *Journal of Product Innovation Management, 28*(3), 381-383.

Bruce, M. (2002). Marketing and design. In M. B. a. J. Bessant (Ed.), *Design in Business. Strategic Innovation through design*. London: Prentice Hall in cooperation with Design Council and Financial Times.

Bruce, M., & Cooper, R. (1997). *Marketing and Design Management*. New York and London: International Thompson Business Press.

Bruce, M., & Jevnaker, B. H. (Eds.). (1998). *Management of design alliances. Sustaining competitive advantage*. Chichester: Wiley.

Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues, 8*(2), 5-21.

Buchanan, R. (2001). Design research and the new learning. *Design Issues, 17*(4), 3-23.

Buchenau, M., Fulton Suri, J. (2000). Experience prototyping. *DIS '00: Proceedings of the 3rd conference on Designing interactive systems* (pp. 424-433). New York City, New York, United States: ACM.

Burns, Cottam, Vanstone, & Winhall. (2006). *RED Paper 02, Transformation Design*. London: Design Council.

Buxton, W. (2007). *Sketching user experiences: getting the design right and the right design*. Amsterdam: Elsevier/Morgan Kaufmann.

Carlgren, L. (2009). *Early involvement of industrial designers in product development: Exploring motives and challenges.* (Licentiate Thesis), Chalmers University of Technology.

Christensen, C. M., & Bower, J. (1996). Customer power, strategic investment and the failure of leading firms. *Strategic Management Journal, 17*, 197-218.

Cook, L. S., Bowen, D. E., Chase, R. B., Dasu, S., Stewart, D. M., & Tansik, D. A. (2002). Human issues in service design. *Journal of Operations Management, 20*(2), 159-174.

Cooper, R., Junginger, S., & Lockwood, T. (2009). Design Thinking and Design Management: A research and practice perspective. *Design Management Review, 20,* 46-53.

Cooper, R., & Evans, M. (2006). Breaking from Tradition: Market Research, Consumer Needs, and Design Futures. *Design Management Review, 17* (1), 68-74.

Cooper, R., & Press, M. (1994). *The design agenda : a guide to successful design management*. Chichester: Wiley.

Cooper, R. G. (1988). The new product process: A decision guide for management. *Journal of Marketing Management, 3*(3), 238-255.

Coughlan, P., Suri, J. F., & Canales, K. (2007). Prototypes as (design) tools for behavioral and organizational change. *The Journal of Applied Behavioral Science, 43*(1), 122-134.

Cross, N. (2006). *Designerly ways of knowing*. London: Springer Verlag London Ltd.

Cross, N. (2007). Forty years of design research. *Design Studies, 28*(1), 1-4.

Danish Design Centre. (2003). *The economic effects of design*: National Agency for Enterprise and Housing.

de Bretani, U. (2001). Innovative versus incremental new business services: different keys for achieving success. *The Journal of Product Innovation Management, 18*(3), 169-187.

Design Council. (2004). *The impact of design on stock market performance: An analysis of UK quoted companies 1994-2003*. London, UK: Design Council.

Design Council. (2010). Design Industry Research 2010. Retrieved 2011-08-09, 2011, from http://www.designcouncil.org.uk/industryresearch

Detrell, C. (1990). *Svenska företags investeringar i industridesign*. Stockholm, Sweden: Svensk Industridesign.

Diana, C., Pacenti, E., & Tassi, R. (2010). Visual tools to design: About the role of visualization techniques for service design. *Design Research Journal, 1*(10), 49-55.

Dorst, K. (2006). Design problems and design paradoxes. *Design Issues, 22*(3), 4-17.

Dorst, K., & Cross, N. (2001). Creativity in the design process: Co-evolution of problem-solution. *Design Studies, 22*, 425-437.

Dorst, K., & Dijkhuis, J. (1995). Comparing paradigms for describing design activity. *Design Studies, 16*(2), 261-274.

Dubberly, H., & Evenson, S. (2011). Design as learning - or "knowledge creation" - the SECI model. *Interactions, 18 (January + February)*.

Dumas, A., & Mintzberg, H. (1989). Managing Design /Designing Management. *Design Management Journal (Former Series), 1*(1), 37-43.

Dumas, A., & Whitfield, A. (1989). Why design is difficult to manage: a survey of attitudes and practices in brittish industry. *European Management Journal, 7*(1), 50-56.

Dunne, D., & Martin, R. (2006). Design Thinking and How It Will Change Management Education: An Interview and Discussion. *Academy of Management Learning & Education, 5*(4), 512-523.

Edeholt, H. (2004). *Design, innovation och andra paradoxer: Om förändring satt i system.* (Doctoral Dissertation) Chalmers University of Technology, Göteborg.

Edeholt, H., & Löwgren, J. (2003, Apr). *Industrial design in a postindustrial society: A framework for understanding the relationship between industrial design and interaction desgin.* . Paper presented at the 5th Conference of European Academy of Design, Barcelona.

Edvardsson, B., Gustafsson, A., Johnson, M. D., & Sandén, B. (2000). *New service development and innovation in the new economy*. Lund: Studentlitteratur.

Friedman, K. (2003). Theory construction in design research: criteria: approaches, and methods. *Design Studies, 24*, 507-522.

Gallouj, F., & Weinstein, O. (1997). Innovation in services. *Research Policy, 26*(4-5), 537-556.

Gaver, B., Dunne, T., & Pacenti, E. (1999). Design: Cultural probes. *Interactions, 6 Jan/Feb*.

Gemser, G., & Leenders, M. (2001). How integrating industrial design in the product development process impacts on company performance. *Journal of Product Innovation Management, 18*(1), 28-38.

Gloppen, J. (2009). Perspectives on design leadership and design thinking and how they relate to european service industries. *Design Management Journal, 4*(1), 33-47.

Goldstein, S. M., Johnston, R., Duffy, J., & Rao, J. (2002). The service concept: the missing link in service design research? . *Journal of Operations Management, 20*(2), 121-134.

Gorb, P., & Dumas, A. (1987). Silent design. *Design Studies, 8*(3), 150-156.

Greenbaum, J., & Kyng, M. (1991). *Design at work: Cooperative design of computer systems*. Hillsdale, NJ, USA: L. Erlbaum Associates Inc.

Grönroos, C. (2000). *Service management and marketing. A customer relationship management approach.* . Chichester: John Wiley & Sons Ltd.

Grönroos, C. (2008). Service logic revisited: who creates value? And who co-creates? *European Business Review, 20*(4), 293-314.

Guldbrandsen, M., & VanDijk, G. (2011). No interdisciplinarity without disciplines. *Touchpoint, 2 (3),* 68-75.

Gummesson, E. (1995). Relationship marketing: Its role in the service economy. In W. I. Glynn & J. G. Barnes (Eds.), *Understanding Services Management*. New York, USA: John Wiley & Sons.

Han, Q. (2010). *Practices and principles in Service Design; stakeholders, knowledge and Community of Service.* (Doctoral Dissertation) University of Dundee, Dundee.

Hanington, B. (2003). Methods in the making: A perspective on the state of human research in design. *Design Issues, 19*(4), 9-18.

Hassi, L., & Lakso, M. (2011, May). *Conceptions of design thinking in themanagement discourse*. Paper presented at the 9th European Academy of Design Conference, Porto.

Hatchuel, A. (2002). Towards design theory and expandable rationality: the unfinished program of Herbert Simon. *Journal of Management and Governance, 5*(3-4), 12 p.

Hatchuel, A., Le Masson, P., & Weil, B. (2001). *Design strategies and the management of "innovation fields"*. Paper presented at the 8th International product development management conference, Enschede, June 2001.

Hatchuel, A., Le Masson, P., & Weil, B. (2002). From knowledge management to design-oriented organisations. *International Social Science Journal, 54*(171), 25-37.

Hertenstein, J. H., & Platt, M. B. (1997). Developing a strategic design culture. *Design Management Journal, 8*(2), 10-19.

Hertenstein, J. H., Platt, M. B., & Veryzer, R. W. (2005). The impact of industrial design effectiveness on corporate financial performance. *Journal of Product Innovation Management, 22*, 3-21.

Heskett, J. (2006). *Design - en introduktion*. Stockholm: Raster Förlag.

Heskett, J. (2009). Creating economic value by design. *International Journal of Design, 3*(1).

Heskett, J. L. (1986). *Managing in the service economy*. Boston, Mass.: Harvard Business School Press.

Hjorth, D. (2001). *Rewriting entrepreneurship : enterprise discourse and entrepreneurship in the case of re-organising ES*. (Docotoral Dissertation) Växjö: Växjö Univ. Press.

Hjorth, D., & Johannisson, B. (2007). Learning as entrepreneurial process. In A. Fayolle (Ed.), *Handbook of research in entrepreneurship education. Vol. 1, A general perspective* (pp. 46-66). Cheltenham: Edward Elgar.

Holmlid, S. (2004). *Issues for cooperative design: A procurement perspective. In Proceedings* Paper presented at the PDC. Toronto,

Holmlid, S. (2007, Jun). *Interaction design and service design: Expanding a comparison of design disciplines*. Paper presented at the NORDES 2007. Stockholm

Holmlid, S. (2008, Apr). *Towards an understanding of the challenges for design management and service design*. Paper presented at the International DMI Education Conference: Design Thinking: New Challenges for Designers, Managers and Organizations. Paris

Holmlid, S. (2009a). Managing interaction design and business innovation: Understanding interaction design as key activity of the operating core. *Aesthesis, International journal of art and asethetic in management and organizational life, 2*(3), 99-105.

Holmlid, S. (2009b, Nov). *Participative, co-operative, emancipatory: From participatory design to service design*. Paper presented at the DeThinking Service ReThinking Design, First Nordic Conference on Service Design and Service innovation. Oslo

Holmlid, S., & Evenson, S. (2008). Bringing service design to service sciences, management and engineering. *Service Science, Management and Engineering Education for the 21st Century* (pp. 341-345).

Inns, T. (2007). Introduction *Designing for the 21st century: interdisciplinary questions and insights* (pp. 11-26). Aldershot: Gower.

Jaworski, B., & Kohli, A. (2006). Co-creating the voice of the customer, In R. F. Lusch & S. L. Vargo (Eds.), *In The Service-dominant Logic of Marketing: Dialog, debate, and directions.* New York: M.E.Sharpe. (pp. 108-117)

Jelinek, M., Romme, G., & Boland, R. J. (2008). Introduction to the special issue organization studies as a science for design: Creating Collaborative Artifacts and Research. *Organization Studies, 29*(3), 317-329.

Jevnaker, B. H. (2000). How design becomes strategic. *Design Management Journal, 11*(1), 41-47.

Johansson, U., & Svengren Holm, L. (2008a). *Möten kring design: om mötet mellan design, teknik och marknadsföring*. Lund: Studentlitteratur.

Johansson, U., & Svengren Holm, L. (2008b, Apr). *Patterns of interaction*. Paper presented at the DMI Academic Conference 2008, Paris.

Johansson, U., & Woodilla, J. (2008a). Designers dancing within hierarchies: The importance of non-hierarchical power for design integration and implementation. *The Design Journal, 11*(2), 95.118.

Johansson, U., & Woodilla, J. (2008b, April). *Towards a better paradigmatic partnership between design and management.* Paper presented at the International DMI Education Conference. Paris

Johansson, U., & Woodilla, J. (2010, Jul). *How to avoid throwing the baby out with the bathwater: An ironic perspective on design thinking.* Paper presented at the European Group for Organization Studies (EGOS) Colloquium. Lisbon

Johansson, U., Woodilla, J., & Çetinkaya, M. (2011, Sep). *The Emperor's new clothes or the magic wand? The past, present and future of design thinking.* Paper presented at the 1st Cambridge Academic Management Conference, Cambridge.

Junginger, S. (2006). *Change in the making: Organizational change through human-centered product development.* (Doctoral Dissertation), Carnegie Mellon University, Pittsburg.

Junginger, S. (2011, May). *The chile miner rescue - a human-centered design reflection.* Paper presented at the The Endless End, The 9th International European Academy of Design, EAD9, Porto.

Kelley, T. (2001). *The art of innovation: Lessons in creativity from IDEO, America's leading design firm* (first ed.). New York: Doubleday.

Kimbell, L. (2009a, May). *Design practices in Design Thinking*. Paper presented at the European Academy of Management 2009 Conference. Liverpool

Kimbell, L. (2009b, Oct). *Service-dominant logic and design for service*. Paper presented at the Service Design Network Conference, Madeira.

Kimbell, L. (2009c). The turn to service design. In G. Julier & L. Moor (Eds.), *Design and Creativity: Policy, Management and Practice,* (pp. 157-173). Oxford: Berg.

Kimbell, L. (2010a). Marketing: Connecting with people, creating value. In M. Stickdorn & J. Schneider (Eds.), *This is Service Design Thinking* (pp. 46-51). Amsterdam: BIS.

Kimbell, L. (2010b). Service-dominant logic and design for service. *Touchpoint, 1(3),* 23-26.

Kimbell, L., & Seidel, V. P. (Eds.). (2008). *Designing for services: Multidisciplinary perspectives: Proceedings from the exploratory project on designing for services in science and technology-based enterprises.* Oxford: Saïd Business School.

Kleinsmann, M., & Valkenburg, R. (2008). Barriers and enablers for creating shared understanding in co-design projects. *Design Studies, 29*(4), 369-386.

Kolko, J. (2010). Abductive thinking and sensemaking: the drivers of design synthesis. *Design Issues, 26*(1), 15-28.

Kotler, P., & Rath. (1984). Design - a powerful but neglected strategic tool. *Journal of Business Strategy, 5*(2), 16-21

Krippendorff, K. (1989). On the essential contexts of artifacts or on the proposition that "Design is making sense (of things)". *Design Issues, 5*(2), 9-39.

Krippendorff, K. (2006). *The semantic turn: a new foundation for design*. Boca Raton, FL.: CRC Press.

Kristensson, P., Gustafsson, A., & Archer, T. (2004). Harnessing the Creative Potential among Users. *Journal of Product Innovation Management, 21*(1), 4-14.

Lawson, B. (1980/2004). *How designers think. The design process demystified* (Fourth Edition ed.). Oxford, UK: Architectural Press.

LeMasson, P., Weil, B., & Hatchuel, A. (2010). *Strategic management of innovation and design*. Cambridge, UK: Cambridge University Press.

Leonard, D., & Rayport, J. F. (1997). Spark innovation through empathic design. *Harvard Business Review, 75*(6), 102-113.

Liedtka, J. (2000). In defense of strategy as design. *California Management Review, 42*(3), 8-30.

Liedtka, J. (2010). Business strategy and design: Can this marriage be saved? *Design Management Review, 21,* 6-11.

Lindahl, I., & Nordin, F. (2010). The interplay of design and marketing; A general model. *Irish Journal of Management 30*(1).

Lindegaard, G. (2004). Business: Making the business our business: one path to value-added HCI. *interactions, 11,* 12-17.

Lockwood, T. (2009). *Design thinking : integrating innovation, customer experience and brand value*. New York: Allworth Press.

Lorenz, C. (1986). *Design & Design Management som konkurrensmedel (the design dimension)*. Kristianstad: Svenska Dagbladets Förlags AB.

Løvlie, L., Downs, C., & Reason, B. (2008). Bottom-line experiences: measuring the value of design in service. *Design Management Review, 19*(1), 72-79.

Lusch, R. F., & Vargo, S. L. (2006). *The Service-dominant logic of marketing: dialog, debate, and directions*. Armonk, NY, USA: M.E. Sharpe.

Maffei, S., Mager, B., & Sangiorgi, D. (2005). *Innovation through service design. From research and theory to a network of practice. A users' driven perspective*. Paper presented at the Joining Forces.

Mager, B. (2009). Service design as an emerging field. In S. Miettinen & M. Koivisto (Eds.), *Designing services with innovative methods* (pp. 28-42). Helsinki: University of Art and Design, Helsinki.

Magnusson, P. (2009). Exploring the contributions of involving ordinary users in ideation of technology-based services. *Journal of Product Innovation Management, 26*, 578-593.

Magnusson, P. R., Matthing, J., & Kristensson, P. (2003). Managing user involvement in service innovation: Experiments with innovating end-users. *Journal of Service Research, 6*(2), 111-124.

Manhaes, M., Varvakis, G., & Vanzin, T. (2010). Designing services as a knowledge creation process. *Touchpoint, 2 (2),* 28-31.

Manzini, E. (2009). Service design in the age of networks and sustainability. In S. Miettinen & M. Koivisto (Eds.), *Designing Services with Innovative Methods* (pp. 44-59). Helsinki: University of Art and Design, Helsinki.

Martin, R (2009). *The design of business : why design thinking is the next competitive advantage*. Boston, Mass.: Harvard Business Press.

Martin, R. (2004). The design of business. *Rotman Management, Winter 2004*.

Martin, R. (2007). Design and Business, why can't we be friends? *Journal of Business Strategy, 28*(4), 6-12.

Mattelmäki, T. (2006). *Design Probes*. Helsinki: University of the Art and Design Helsinki.

Matthing, J. (2004). *Customer involvement in new service development.* (Doctoral Dissertation), Service Research Center - Karlstad University.

Matthing, J., Sandén, B., & Edvardsson, B. (2004). New service development: Learning from and with customers. *International Journal of Service Industry Management, 15*(5), 479-498.

Michel, S., Brown, S., & Gallan, A. (2008a). An expanded and strategic view of discontinuous innovations: deploying a service-dominant logic. *Journal of the Academy of Marketing Science, 36*(1), 54-66.

Michel, S., Brown, S. W., & Gallan, A. (2008b). Service-logic innovations: how to innovate customers, Not Products. *California Management Review, 50*(3), 49-65.

Miettinen, S., & Koivisto, M. (2009). *Designing Services with innovative methods*. Helsinki, Finland: TAIK/ Kuopio Acadademy of Design.

Miller, D., Rudnick, L., Kimbell, L., & Philipsen, G. (2010). *The glen cove conference on strategic design and public policy*: UNIDIR, University of Washington, University of Oxford.

Moggridge, B. (2007). *Designing interactions* Cambridge, Mass.: MIT Press.

Morelli, N. (2003). Product-service systems, a perspective shift for designers: A case study: the design of a telecentre. *Design Studies, 24*(1), 73-99.

Morelli, N. (2009). Service as value co-production: reframing the service design process. *Journal of Manufacturing Technology Management, 20*(5), 565-590.

Moritz, S. (2005). *Service Design: Practical Access to an Evolving Field*. Köln International School of Design, Cologne, Germany.

Nielsén, T. (2008). *Svenska företag om design 2008*. Stockholm, Sweden: SVID.

Norman, D. A. (2010). Technology first, needs last: The research-product gulf. *interactions, XVII*.

Norman, D. A. (1998). *The design of everyday things*. London: MIT.

Norman, D. A., & Draper, S. W. (Eds.). (1986). *User centered system design : new perspectives on human-computer interaction*. Hillsdale, N.J.: Erlbaum.

Normann, R. (2001). *Reframing business - when the map changes the landscape*: Chichester.: John Wiley & Sons Ltd.

Normann, R., & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard Business Review, 71*(4), 65-77.

Nussbaum, B. (2011, April 6th). Design thinking is a failed experiment. So what's next? Retreieved 2011-04-11, from http://www.fastcodesign.com/1663558/design-thinking-is-a-failed-experiment-so-whats-next

Oosterom, A. (2011). DesignThinkers presentation at the Aegon Marketing Conference 2011. Retrieved 2011-06-10, 2011, from http://www.slideshare.net/designthinkers/designthinkers-aegon-marketin-conference-2011?from=ss_embed

Ordanini, A., & Parasuraman, A. (2011). Service innovation viewed through a service dominant lens: A conceptual framework and empirical analysis. *Journal of Service Research, 14*(1), 3-23.

Ostrom, A., Bitner, M. J., Brown, S., Burkhard, K., Goul, M., Smith-Daniels, V., et al. (2010). Moving forward and making a difference: research priorities for the science of service. *Journal of Service Research, 13*(4), 4-35.

Pacenti, E., & Sangiorgi, D. (2010). Service design research pioneers: An overview of service design research developed in italy since the '90s. *Design Research Journal, 1*(1), 26-33.

Pals, N., Steen, M. G. D., Langley, D. J., & Kort, J. (2008). Three approaches to take the user perspective into account during new product design. *International Journal of Innovation Management, 12*(3), 275-294.

Parker, S., & Heapy, J. (2006). *The Journey to the Interface*. London.

Payne, A., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value. *Journal of Academic Marketing Science*(36), 83-96.

Perks, H., Cooper, R., & Jones, C. (2005). Characterizing the role of design in new product development: An empirically derived taxonomy. *Journal of Product Innovation Management,, 22*(2), 111-127.

Persson, S. (2005). *Toward enhanced interaction between engineering design and industrial design*. (Licentiate thesis) Göteborg: Chalmers tekniska högskola.

Persson, S., Karlsson, M., & Rohlin, K. (2007). *New actors in new product development: investigating communication and collaboration in interdisciplinary product development teams.* Paper presented at the 14th International Product Development Management Conference, Porto, Portugal.

Piller, F., Ihl, C., & Vossen, A. (2011). A typoplogy of customer co-creation in the innovation process. In H. Hanekop & V. Wittke (Eds.), *New Forms of Collaborative production and innovation: Economic, social, legal and technical charactersitics and conditions*: Lichtenberg Kolleg, University of Goettingen.

Powell, T. C. (1995). Total quality management as competetive advantage: A review and empirical study. *Strategic Management Journal, 16*(1), 15-37.

Prahalad, C. K., & Ramaswamy, V. (2000). Co-opting customer competence. *Harvard Business Review, 78*(1), 79-87.

Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: the next practice in value creation. *Journal of Interactive Marketing, 18*(3), 5-14.

Press, M., & Cooper, R. (2003). *The design experience: the role of design and designers in the twenty-first century*. Burlington, UK: Ashgate Publishing Company.

Reason, B., Downs, C., & Lavrans, L. (2009). Service Thinking. Retrieved 2011-06-10, 2011, from http://www.livework.co.uk/articles/service-thinking

Redström, J. (2006). Towards user design? On the shift from object to user as the subject of design. *Design Studies, 27*, 123-139.

Rosell, G. (1990). *Anteckningar om designprocessen*. Stockholm: Kungliga Tekniska Högskolan.

Rosted, J. (2005). *User-driven innovation: Results and recommendations*. Copenhagen: The Ministry of Economic and Business Affairs' Division for Research and Analysis.

Rowe, P. G. (1987). *Design thinking*. Cambridge, Mass.: MIT Press.

Rylander, A. (2009a). Bortom Hajpen - designtänkande som epistomologiskt perspektiv. *Research Design Journal, 1*(1), 20-27.

Rylander, A. (2009b). Design thinking as knowledge work: epistemological foundations and practical implications. *Design Management Journal, 5*(1).

Rylander, A. (2010, Jul). *Unpacking the Magic of Design: Design-Driven Innovation as Aesthetic Experience*. Paper presented at the 26th EGOS Colloquium. Lisbon

Sandén, B. (2007). *The customer's role in new service development.* (Doctoral Dissertation) Karlstad University, Karlstad.

Sanders, B.-N., Elizabeth, & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign, 4*(1), 5-18.

Sangiorgi, D. (2009, Apr). *Building up a framwork for service design research*. Paper presented at the 8th European Academy of Design Conference, Aberdeen.

Sangiorgi, D. (2010, Nov). *Transformative Services and Transformation Design*. Paper presented at the ServDes, The 2nd Nordic Conference on Service Design and Service Innovation. Retrieved from http://www.servdes.org/pdf/sangiorgi.pdf

Sangiorgi, D., & Holmlid, S. (2009). *Rigour in service design research*. Paper presented at the IASDR 2009: Rigour and Relevance in Design.

Sangiorgi, D., & Pacenti, E. (2008, Nov). *Emerging practices of Service Design driven innovation*. Paper presented at the Service Design Network Conference, Amsterdam

Sarasvathy, S. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review, 26*(2), 243-263.

Schön, A. D. (1983). *The reflective practitioner: How Professionals Think in Action*. London: Basic Books Inc.

Schön, A. D. (1985). *The design studio* (1 ed.). London: RIBA Publications Limited.

Sebastian, R. (2005). The interface between design and management. *Design Issues, 21*(1), 81-93.

Segelström, F. (2010). *Visualisations in service design.* (Licentate Thesis) Linköpings universitet, Linköping.

Segelström, F., & Holmlid, S. (2009). *Visualization as tools for research: Service designers on visualizations*. Paper presented at the NorDes 2009 – Engaging artifacts, Nordic Design Research Conference, Oslo.

Segelström, F., Raijmakers, B., & Holmlid, S. (2009). *Thinking and doing ethnography in service design.* Paper presented at the International Association of Societies of Design Research, IASDR 2009, Seoul.

Shostack, L. G. (1977). Breaking free from product marketing. *Journal of Marketing, 41*(2), 73-80.

Shostack, L. G. (1982). How to design a service. *European Journal of Marketing, 16*(1), 49-63.

Shostack, L. G. (1984). Designing services that deliver. *Harvard Business Review, 62*(Jan-Feb), 133-139.

Simon, H. (1973). The strucutre of ill-structured problems. *Artifical Intelligence, 14*, 181-201.

Simon, H. (1996). *The sciences of the artificial* (3rd ed.): MIT Press.

Souder, W. E. (1988). Managing relations between R&D and marketing in new product development projects. *Journal of Product Innovation Management, 5*(1), 6-19.

Spohrer, J., & Maglio, P. P. (2008). The emergence of service science: Toward systematic service innovations to accelerate co-creation of value. *Production and Operations Management, 17*(3), 238-246.

Stempfle, J., & Badke-Schaub, P. (2002). Thinking in design teams-an analysis of team communication. *Design Studies, 23*(5).

Stickdorn, M. (2010). 5 principles of service design thinking. In M. Stickdorn & J. Schneider (Eds.), *This is service design thinking*. Amsterdam BIS Publishers. (pp. 24-45)

Stickdorn, M., & Schneider, J. (2010). *This is service design thinking*. Amstedam: BID publisher.

Sun, Q., Williams, A., & Evans, M. (2011). A theoretical design management framework. *The Design Journal, 14*(1), 112-132.

Sundbo, J. (2008). Innovation and involvement in services. . In L. Fuglsang (Ed.), *Innovation and the creative prosess. Towards innovation with care*. Cheltenham, UK, Northampton MA, USA: Edward Elgar.

Svengren Holm, L., & Johansson, U. (2007). Design management. In Å. Harvard (Ed.), *Under Ytan*. Stockholm: Raster Förlag. (pp. 290-309)

Svengren, L. (1995). *Industriell design som strategisk resurs : en studie av designprocessens metoder och synsätt som del i företags strategiska utveckling*. (Doctoral dissertation) Lund: Lund Univ. Press.

SVID. (2004). *Swedish companies on design: attitudes, profitability and design maturity*. Stockholm, Sweden: SVID, Stiftelsen Svensk Industridesign.

Tether, B., & Stigliani, I. (2010). Service Design 2020: What does the future hold, and (how) can we shape it? *Touchpoint 1(3),* 33-37.

Utterback, J. M., Vedin, B., Alvarez, E., Ekman, S., Walsh Sanderson, S., Tether, B., et al. (2006). *Design inspired innovation*. Singapore: World Scientific Publishing Co. Pte. Ltd.

Vaajakallio, K., Mattelmäki, T., Lehtinen, V., Kantola, V., & Kuikkaniemi, K. (2009). *Literature reviw on service design*. Helsinki: Universiyt of Art and Design Helsinki.

Valtonen, A. (2007). *Redefining industrial design: changes in the design practice in Finland*. Helsinki: University of Art and Design Helsinki.

Vargo, S., & Akaka, M. (2009). Service-Dominant logic as a foundation for service science: Clarifications. *Service Science, 1*(1), 32-41.

Vargo, S., & Lusch, R. (2004). Evolving to a new dominant logic of marketing. *Journal of Marketing, 68*(1), 1-17.

Vargo, S., & Lusch, R. (2008a). Service-dominant logic: continuing the evolution. *Journal of Academic Marketing Science, 36*(1), 1-10.

Vargo, S., & Lusch, R. (2008b). Why "service"? *Journal of Academic Marketing Science*(36), 25-38.

Vargo, S., Maglio, P., & Akaka, M. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal, 26*, 145-152.

Verganti, R. (2003). Design as brokering of languages: Innovation strategies in Italian firms. *Design Management Journal (Former Series), 14*(3), 34-42.

Verganti, R. (2006). Innovating through design. *Harvard Business Review, December*.

Verganti, R. (2008). Design, meanings, and radical innovation: A metamodel and a research agenda. *Journal of Production and Innovation Management, 25*(5), 436-456.

Verganti, R. (2009). *Design driven innovation : changing the rules of competition by radically innovating what things mean*. Harvard Business Press: Boston.

Veryzer, R. W. (2005). The roles of marketing and industrial design in discontinuous new product development. *Journal of Product Innovation Management, 22*, 22-41.

Veryzer, R. W., & Borja de Mozota, B. (2005). The impact of user-oriented design on new product development: An examination of fundamental relationships. *Journal of Product Innovation Management, 22*(2), 128-143.

von Hippel, E. (1986). Lead Users: A source of novel product concepts. *Management Science, 32*(7), 791-805.

von Stamm, B. (2003). *Managing innovation, design and creativity*. Chichester: Wiley.

Walsh, V., Roy, R., Bruce, M. and Potter, S. (1992). *Winning by design. Technology, product design and international competitiveness*. Oxford: Blackwell.

Wieser, F. (1891). The austrian school and the theory of value. *The Economic Journal, 1*, 108-121.

Winograd, T., & Flores, F. (1987). *Understanding computers and cognition : a new foundation for design*. Reading, Mass.: Addison-Wesley.

Witell, L., Kristensson, P., Gustafsson, A., & Löfgren, M. (2011). Idea generation: customer co-creation versus traditional market research techniques. *Journal of Service Managament, 22*(2). 140-159

Wreiner, T., Mårtensson, I., Arnell, O., Gonzalez, N., Holmlid, S., & Segelström, F. (2009, Nov). Exploring service blueprints for multiple actors: a case study of car parking services. Proceedings *DeThinkingService Rethinking Design, First Nordic Conference on Service Design and Service Innovation*. Oslo.

Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1985). Problems and Strategies in Services Marketing. Journal of Marketing, 49(2), 33-46.

Zomerdijk, L., & Voss, C. (2010). Service design for experience-centric services. Journal of Service Research, 13(1), 67-82.

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Note: The article content is the same as the published version, only the layout has been changed to suit the format of this thesis

Paper I

Comparing Design Thinking with Service-Dominant logic

Katarina Wetter-Edman

ABSTRACT

Design tradition takes the user as a starting point and focuses on his or her needs, wants and expectations. The Service Dominant Logic (S-D logic), a service marketing perspective, focuses on the user as the only one to determine value. The key principles of S-D logic and design practice have different roots yet are strikingly similar. Design practice and the more conceptual discourse design thinking (DT) are deeply concerned with the creation of value and the importance of understanding the users/customers.

This paper introduces the characteristics of S-D logic and compares them with the central characteristics of DT. The paper explores connections and overlaps between the two concepts, and concludes that the connections are complementary. Some practical implications of the use of service dominant logic for design thinking and design practice are proposed.

INTRODUCTION

Everything is service! That is bottom line of the service dominant logic (S-D logic) launched by Vargo and Lusch in 2004. Economic activity centers on 'the exchange of service for service', implying that goods are means for service provision. Based in marketing, S-D logic reduces or even erases the distinction between products/goods and services. This was not new; in 1993 Normann and Ramirez claimed that value is determined in and by the customers' use situation and not accumulated by refining raw material in a production process. They called this the 'company's offering' and proposed that the value

arises from a "value constellation" rather than accumulating in a value chain (1993:111). In S-D logic the service (in the singular) provided by a company/organization may, and often does, include both goods and services, which makes the distinction between material and immaterial products obsolete. The idea that the value is determined in use – value-in use – changes the business logic and enhances the importance of understanding the use situation and the user. However, S-D logic lacks processes for the construction and implementation of service.

The S-D logic perspective has strong implications for design and the position that design has within the company. Industrial design has been a victim of the value chain perspective because the holistic customer perspective is difficult to integrate into the sequential logic of the value chain. Design has often been added at the end and has thus been difficult to integrate into the management of the companies (Heskett, 2009, Johansson and Woodilla, 2008). The S-D logic focus on value co-creation has many implications for managers with the provider perspective. Understanding the customer demands involvement throughout the organization, the processes needed and approaches of involvement change (Ostrom et al., 2010). S-D logic has been proposed as a framework for service design that includes the distinctions *interaction based*, *relationship focused* and *network centered* (Cautela et al., 2009).

In this paper, I have chosen to explore S-D logic and design thinking rather than S-D logic and service design. The main argument for this is that service perspective includes both services and goods in the notion of service. This entails that several design disciplines are involved in the design of service, e.g. service design, interaction design and industrial design. Design thinking is one way of conceptualizing these different design disciplines, i.e. what the different design disciplines have in common, the characteristics mentioned below. Therefore, I find it relevant to explore the main characteristics of DT and S-D logic rather than one design discipline per se.

Design thinking – how designers go about thinking and doing things (Kimbell, 2009) has been vastly discussed in the business press the last few years, and is almost to be considered a hype (Rylander, 2009). Two directions are recognized in design thinking: one quite recent within the business and management field, and the other rooted in the practice and theories of design going back to the 60's. The first consists largely of the arguments about the effects of design thinking for value creation, innovation, and 'how design thinking' can be adopted by management and organizations (Martin, 2009,

Brown, 2008). The second direction highlights the characteristics of diverse design practices. This includes framing/reframing on abstract level, visual skills, people-focused and iterative processes that attempt to envision possible futures (Kelley, 2001, Lawson, 2006). Given these diverse notions of design thinking, in this paper design DT is defined as an approach based in design practice and designerly ways of thinking (Cross, 2006, Rowe, 1987) thus based in a professional design practice.

As previously mentioned S-D logic lacks practical methods and techniques for value creation, which are crucial if the shift from goods dominant logic to service dominant logic is to be realized. Designers who take the customer as their starting point and are trained in understanding and solving of "wicked problems" (Buchanan, 1992) can be a valuable resource for making this transition (Ostrom et al., 2010).

This paper identifies five concepts that are present within S-D logic and DT. These different characteristics and how they can complement and enrich each other are then discussed.

SERVICE DOMINANT LOGIC – BACKGROUND AND CHARACTERISTICS

Background

Service marketing is often considered to have started with Shostack's (1977) article arguing that Kotler's marketing logic with its product focus was not suitable for service companies. During the following decade the goods and services dichotomy was the academic focus (Matthing, 2004) and IHIP emerged as the best known model to define and describe services (Zeithaml et al., 1985).

IHIP stands for Intangibility – services are not tangible, therefore they cannot be judged before consumption, for example, compare a sweater with a bus trip; Heterogeneity – the people that take part in the service delivery process, provider and consumer, are unique at each occasion, therefore it is not possible to reproduce a service; Inseparability of production and consumption – services are consumed and produced at the same moment, hence the planning and development process must be different; Perishability – service cannot be stored or saved (ibid.,).

The IHIP model is widely accepted and used. But the model has been critiqued, and the main critique concerns services being described in relation to

products, which means the focus easily becomes what services are not which might block important aspects. Another critique is the fact that the IHIP model does not account for what services are in practice. Many services are a) dependent upon tangible products – sms on mobile phone, b) homogenous – internet services, c) are produced and consumed at different occasions – educational programs, d) are storable – many software. (Examples from Kristensson (2009) author's translation) From this critique, new ideas of how to describe the nature of services emerged (Matthing, 2004) emphasizing service as a perspective rather than a replacement of products, the role of the customer and how the value creation processes were constructed. The consumer as the definer of the value of the proposition/offering from the company/organisation, and the offering as a whole being viewed as service(s) were both widely acknowledged (Grönroos, 2000, Gummesson, 1995) before Vargo and Lusch (2004) launched what they called "Service Dominant Logic" in the Journal of Marketing.

THE CENTRAL CHARACTERISTICS OF S-D LOGIC

Service Dominant Logic is aimed at solving the dichotomy between service and product with knowledge instead of products being the core. Value is realized in use and co-created with consumers, not solely by the producing company. The position that the value of a service (or product) is realized at the moment it is consumed is now established, in contrast to the traditional view that value is accumulated in a production process (Vargo and Lusch, 2004)

The S-D logic is an evolving concept, and the foundational premises of S-D logic have been developed and elaborated since they were first described. In Vargo and Lusch's (2004) first article on S-D logic there were 7 FP's that were later extended to 9 and a 10th was added in 2008. Some of the foundational premises overlap and to some extent they are at different levels[1]. The foundational premises clarify how value is created and stress the role of the actors as co-creators. In the 2008 article there is an additional focus on the contextual nature of the creation of value in use (Vargo and Lusch, 2008).

1. For detailed reading on the Foundational Premises and their development see Vargo & Lusch 2004, 2008

DESIGN THINKING – BACKGROUND AND CHARACTERISTICS

Background

The practice-based understanding of DT begins with Shöön's (1983) thoughts about reflection-in-action and emphasizes the tools and methods used by designers. In this context specifics for DT are empathy, intuition and iterative processes between the whole/the detail and practice/theory (Rosell, 1990, Rowe, 1987). Different kinds of visual thinking and presentation skills used to describe possible future solutions are highlighted as especially important (Lawson, 2006). Design is expanded beyond the process and the result to the experienced situation the designers are in (Dorst, 1995). Buchanan (2001) argues for four orders of design, in a very simplified description these are: 1) symbols, 2) things, 3) action and 4) thought. These orders roughly correspond to the disciplines graphic design, industrial design, interaction design and system design, but Buchanan explicitly points out that the disciplines should not be seen as separate, but as design thinking.

> In fact, signs, things, actions, and thoughts are not only interconnected, they also interpenetrate and merge in contemporary design thinking with surprising consequences for innovation. (Buchanan 1992)

The current hype is constructed from "an outside in" perspective, and describes the possibilities when design tools or methods are used by non-designers (Dunne and Martin, 2006). With its roots in Simon's definition of design presented in *The sciences of the artificial*: "Everyone designs who devises courses of action aimed at changing existing situations into preferred ones" (1996:111). As mentioned earlier this paper refers to design thinking as the foundation of the professional design practice.

COMPARISON OF KEY CONCEPTS AND NOTIONS OF SERVICE DOMINANT LOGIC AND DESIGN THINKING

Comparing S-D logic and DT allows S-D logic to be understood from a design perspective so it can inform the design discourse and achieve greater synergy by aligning the vocabulary and argument. The overlaps found are intertwined on a conceptual level and circle around value, the user and co-

creation. A brief description of how these are treated in S-D logic and DT respectively is first presented.

How value is described and understood

In S-D logic, value is defined by the beneficiary at the moment of use, called value-in-use. This notion of value creation is differentiated from the notion of value creation as a sequential process, value-in-exchange. Value-in-exchange, according to Vargo and Akaka (2009) is based in goods dominant logic, and the value is thus destroyed when consumed. If the value is defined by the user in use, the actual physical situation of the person is important. This is called value-in-context and highlights the time and place dimensions and network relationships as key variables. Vargo and Akaka (2009) thus treat three different ideas of how and where value is created, but only accept value-in-use and value-in-context as valid concepts. The notion of value-in-context has been further developed to value-in-social-context, which highlights the importance of understanding the individual context of each service encounter (Edvardsson et al., 2010).

Value as a stand-alone concept is rarely treated explicitly in the design literature. Design has instead focused on generating solutions that are clear, meaningful and effective for the user (Ramirez and Mannervik, 2008) which could be interpreted as valuable. Further, the temporal aspect and the importance of the physical environment are treated (Holmlid, 2007) A definition of service from a design perspective is "Experiences that reach people through many different touch-points, and that happen over time" (Moggridge, 2007) which emphasizes the temporal aspect and puts focus on the touch points. This definition connects well to the concept of value-in-context.

How co-creation is described and understood

In S-D logic value is co-created through the combined efforts of e.g. firms, employees, customers, stockholders and government agencies but is always determined by the beneficiary (user) (Vargo and Lusch, 2008). Co-creation is then considered as co-creation of value and the user is always involved in this co-creation.

The concept of co-creation is used within DT, but it is most often used to refer to the co-creation of ideas and concepts in early phases in order to understand what user needs, wants and expectations create value. This pro-

cess is also often known as co-design. The process often, but not necessarily, involves users; it may as well be a co-design project with two or more designers or other stakeholders involved in the service delivery process. Battarbee (2004), points at the social interaction in the creation of experiences, which in S-D logic terms would be defined as co-creation.

How experience is described and understood

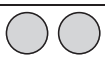
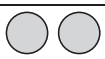
In S-D logic, Vargo & Lusch have deliberately chosen the word phenomenological instead of experiential (Vargo and Lusch, 2008). They stress the notion of a more subtle understanding of experiences departing for the first-person point of view. This view of experience connects to the traditional designerly view on users and the methods developed to understand their needs and desires by taking as starting point the use situation. These views are expressed in the ideas of e.g. participatory design, empathic design (Holmlid, 2009, Ehn, 1992) or experience prototyping (Buchenau, 2000).

Actors, networks and people

S-D logic argues all actors are resource integrators. This is further developed by Vargo and Akaka (2009) and implies that neither the firm nor the customer has adequate resources to create value either independently or interactively in isolation. These resource-integration networks are called service ecosystems. The relational aspect is treated in the service design discourse by Holmlid (2007), and Sangiorgi uses activity theory to describe the systematic and complex nature of service design (Sangiorgi, 2009). In addition Morelli (2003) describes different kinds of techniques for visualizing the system, the actors and the situations for the design of Product-Service-System.

REFLECTIONS ON OVERLAPS AND DIFFERENCES

As mentioned earlier, the concepts and ideas in S-D logic and DT are intertwined. In the following reflections I attempt to sort them and describe the overlaps on three levels; 1) no-overlap, 2) somewhat overlapping and 3) full overlap, as illustrated in Table 1 below. Overlaps are considered when meanings overlap, even though the vocabulary differs.

CONCEPT	DEGREE OF OVERLAP S-D logic/DT	COMMENTS
Value		The concept of 'value' is not explicitly treated in the design literature, the focus is rather on if the output is perceived as meaningful by the user. As such there is an overlap in meaning but not in vocabulary.
Co-creation		Used with different meanings and at different stages.
Actors & Networks		The most prominent overlap is found in the understanding of complexity and networks.
People		S-D logic defines customers and beneficiaries. DT defines users as humans in context.
Experience		The subtle experience is emphasized in both S-D logic and DT. Within DT the understanding of the experience is explored to a higher degree.

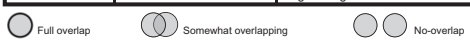


Table 1. Degree of overlap Service - Dominant Logic and Design Thinking

Ideas of value, experience and networks somewhat overlap

The basic idea of value-in-use overlaps, even though explicit ideas on value are not expressed, as clear in DT as in SD-logic. DT has traditionally focused on the user experience as such, where the notion of value is implied. The S-D logic concept of value-in-context is equivalent to the focus of design on touch-points and different visualization techniques developed to communicate temporal and intangible aspects. I nevertheless position them as somewhat overlapping since they treat the ideas of value in different ways.

The idea of experience as denominate of value is present in the two, but explored and expressed to different degrees, whereas the focus on experience as subtle and departing from the user overlaps.

The most consistent overlap is found in the understanding of networks. Both S-D logic and DT acknowledge complexity and treat it extensively. The common metaphor of service ecology is in S-D logic used for conceptual descriptions whereas designers name a specific tool used to interpret and visualize these complexities.

Meanings of co-creation and vocabulary about people differ

S-D logic talks about customers, beneficiaries, actors and operant resources denoting people and their knowledge from a top down perspective. DT talks about users as human beings and customers in their context, with the starting point in the user's individual situation. Further the concept of co-creation is used within the two, but denotes different things.

DISCUSSION AND IMPLICATIONS

S-D logic was "launched" within marketing by Vargo and Lusch in 2004 as a new way of understanding value creation. DT has grown as reflections and descriptions of design practice and the new wave of DT after 2000 accounts of success when used in managerial settings. S-D logic and DT come from different disciplines. This probably partly explains the lack of full overlap in the above comparison. As a conceptual framework, S-D logic is difficult to implement. DT, on the other hand, is rooted in practice and its experience-based descriptions. The recent managerial-based discussion has allowed DT to access strategic levels.

This overview of S-D logic and DT identifies a lack of a full overlap of terminology. However, it also shows several overlapping key characteristics. Thus it may be more fruitful to discuss their complementary nature rather than overlaps and differences.

S-D logic describes and prescribes; DT interprets and visualizes

The main focus of S-D logic is to describe how value is created, where in the process, and by whom. S-D logic also prescribes a new logic for organizations to look at their business offerings, eliminating the distinction between the material and immaterial. One of the main critiques of S-D logic is that as a mindset it provides few guidelines on concrete development and implemen-

tation of service. It has proven difficult to fully integrate this holistic view of service in service-providing companies and organizations.

Design thinking based in practice has developed methods and tools to understand the user's situations, i.e. the users experience, by posing questions on how, why and what trigger these experiences. The main focus is to capture the users 'true' wants, needs, attitudes and desires through hands-on interactions, i.e. with the users and their context in prototyping in their context. The prototyping is not used for validating, but for developing the value propositions as such, a tool for evoking and stimulating the user to express the perceived value.

My contribution is an understanding of how the foundational characteristics of S-D logic and DT relate. I have found the key characteristics to be complementary rather than overlapping. I also point to a gap and show potential for mutual development of S-D logic and DT. Another contribution is to connect hitherto two separate discourses, and thus to open up new areas for research.

Practicing designers often have difficulties in articulating and arguing for their knowledge. Understanding the fundamentals of S-D logic and DT can help them argue for the design practice. DT helps them to articulate their existing knowledge, and S-D logic helps them relate their design knowledge to a marketing and management perspective.

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Bibliography

Battarbee, K., Soronen, A., & Mäyrä, F. (2004). *Living in a zoo: bringing user experiences with technology to life*. Paper presented at the Proceedings of the third Nordic conference on Human-computer interaction, Tampere, Finland: ACM.

Brown, T. (2008). Design Thinking. *Harvard Business Review,* (June), 1-11.

Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues, 8*(2), 5-21.

Buchanan, R. (2001). Design Research and the New Learning. *Design Issues, 17*(4), 3-23.

Buchenau, M., Fulton Suri, J. (2000). Experience prototyping *DIS '00: Proceedings of the 3rd conference on Designing interactive systems* (pp. 424--433). New York City, New York, United States: ACM.

Cautela, Rizzo, & Zurlo. (2009, Oct). *Service design logic: An approach based on different service categories.* Paper presented at the IASDR 2009: Rigor and Relevance in Design Design; Seoul

Cross, N. (2006). *Designerly ways of knowing*. London: Springer Verlag London Ltd.

Dorst, K. (1995). Comparing paradigms for describing design activity. *Design Studies, 16*(2), 261-274.

Dunne, D., & Martin, R. (2006). Design Thinking and How It Will Change Management Education: An Interview and Discussion. *Academy of Management Learning & Education, 5*(4), 512-523.

Edvardsson, B., Tronvoll, B., & Gruber, T. (2010). Expanding understanding of service exchange and value co-creation: a social construction approach. *Journal of the Academy of Marketing Science*.

Ehn, P. (1992). Setting the Stage for Design as Action : artifacts for participatory design in theory and practice. *Nordisk arkitekturforskning 5:4*(4), 49-59.

Grönroos, C. (2000). *Service Management and Marketing. A Customer Relationship Management Approach.* Chichester: John Wiley & Sons Ltd.

Gummesson, E. (1995). Relationship Marketing: Its Role in the Service Economy. In W. I. Glynn & J. G. Barnes (Eds.), *Understanding Services Management*. New York, USA: John Wiley & Sons.

Heskett, J. (2009). Creating Economic Value by Design. *International Journal of Design, 3*(1).

Holmlid, S. (2007). *Interaction design and service design: Expanding a comparison of design disciplines*. Paper presented at the NORDES 2007, Stockholm.

Holmlid, S. (2009, Nov,). *Participative, co-operative, emancipatory: From participatory design to service design*. Paper presented at the DeThinking Service ReThinking Design, First Nordic Conference on Service Design and Service innovation, Oslo.

Johansson, U., & Woodilla, J. (2008, Apr). *Towards a better paradigmatic partnership between design and management.* Paper presented at the International DMI Education Conference, Cergy-Pontoise.

Kelley, T. (2001). *The Art of Innovation: Lessons in creativity from IDEO, America's leading design firm* (first ed.). New York: Doubleday.

Kimbell, L. (2009, May). *Design practices in Design Thinking*. Paper presented at the European Academy of Management 2009 Conference, Liverpool.

Kristensson, P. (2009). *Den tjänstedominanta logiken - Innebörd och implikationer för policy* Stockholm.

Lawson, B. (2006). *How designers think : the design process demystified*. Oxford: Architectural Press.

Martin. (2009). *The design of business : why design thinking is the next competitive advantage*. Boston, Mass.: Harvard Business Press.

Matthing, J. (2004). *Customer Involvement in New Service Development*. (Doctoral dissertation)., Service Research Center - Karlstad University.

Moggridge, B. (2007). *Designing interactions* Cambridge, Mass.: MIT Press.

Morelli, N. (2003). Product-service systems, a perspective shift for designers: A case study: the design of a telecentre. *Design Studies, 24*(1), 73-99.

Normann, R., & Ramirez, R. (1993). From Value Chain to Value Constellation: Designing Interactive Strategy. *Harvard Business Review, 71*(4), 65-77.

Ostrom, A., Bitner, M. J., Brown, S., Burkhard, K., Goul, M., Smith-Daniels, V., et al. (2010). Moving Forward and Making a Difference: Research Priorities for the Science of Service *Journal of Service Research, 13*(4), 4-35

Ramirez, R., & Mannervik, U. (2008). Designing value-creating systems. . In L. Kimbell & V. Seidel (Eds.), *Designing for Services - Multidisciplinary Perspectives* (pp. 35-36). Oxford: University of Oxford, Said Business School. .

Rosell, G. (1990). *Anteckningar om designprocessen*. Stockholm: Kungliga

Tekniska Högskolan.
Rowe, P. G. (1987). *Design thinking*. Cambridge, Mass.: MIT Press.
Rylander, A. (2009). Bortom Hajpen - designtänkande som epistomologiskt perspektiv. *Research Design Journal, 1*(1), 20-27.
Sangiorgi, D. (2009, Apr). *Building up a framwork for service design research*. Paper presented at the 8th European Academy of Design Conference, Aberdeen.
Schön, A. D. (1983). *The Reflective Practitioner: How Professionals Think in Action*. London: Basic Books Inc.
Shostack, L. G. (1977). Breaking Free from Product Marketing. *Journal of Marketing, 41*(2), 73-80.
Simon, H. (1996). *The Sciences of the Artificial* (3rd ed.): MIT Press.
Vargo, S., & Akaka, M. (2009). Service-Dominant Logic as a Foundation for Service Science: Clarifications. *Service Science, 1*(1), 32-41.
Vargo, S., & Lusch, R. (2004). Evolving to a new dominant logic of marketing. *Journal of Marketing, 68*(1), 1-17.
Vargo, S., & Lusch, R. (2008). Service-dominant logic: continuing the evolution. *Journal of Academic Marketing Science, 36*(1), 1-10.
Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1985). Problems and strategies in services marketing. *Journal of Marketing, 49*(2), 33-46.

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Note: The article content is the same as published in the conference proceedings, only the layout has been changed to suit the format of this thesis.

Paper II

The Meander Model - a metaphor for user involvement in service design

Katarina Wetter-Edman (1), Prof. Ulla Johansson (2)

(1) PhD Candidate, (2) Torsten and Wanja Söderberg professor in Design Management,
Director of Business & Design Lab.
Business & Design Lab, School of Design & Crafts in cooperation with
School of Business, Economics and Law
University of Gothenburg

ABSTRACT

This paper explores different approaches to the user within service design (innovation). We start with Verganti's (2009) distinction between "design-driven innovation" versus "user-centered design". We find the user-centered perspective more coherent with service design, since the user is in the core of service creation. However, our empirical material indicates that this dichotomy does not always exist. Instead, we introduce a conceptual approach that blurs the line between "design driven innovation" and "user-centered design". The meander model presented here does not fall into this dichotomous trap, but allows for a more dynamic combination that is more consistent with our empirical data.

INTRODUCTION

The designer's relation to the user is one of the largest research areas within design research. It contains many subareas like "participatory design" (Ehn, 1992), co-design (cf., Kleinsmann & Valkenburg, 2008; Sanders & Stappers, 2008), user-driven innovation (Rosted, 2005) and user-centered design (Steen, Kuijt-Evers, & Klok, 2007) all of which are about different active relations to the user. The new wave of service design has a strong focus on the

development of different co-creation methods (Holmlid, 2009). Both service design and its sibling area within management research – service management – emphasize the role of the customer as central in the new development and realization of service (Prahald & Ramaswamy, 2004). A counter-stream to this user-emphasized direction has recently developed, proposing a new relation, or maybe non-relation to the customer (Norman, 2005; Verganti, 2008, 2009). These researchers argue that instead of turning towards the user for inspiration and dialogue, designers should be inspired within their own network ("webs of designer"), and then *propose* a solution to the user.

Verganti makes a clear dichotomy between user-centered design (UCD) and design-driven innovation (DDI). Only the latter, he claims, can result in radical innovation. The relation between the concepts of UCD and DDI intrigues us and leads to our first research question, *How and in what traditions have these concepts developed?*

In conversations with designers and in an empirical field study we have found it difficult to categorize the designers' approach to the user in either user-centered design or design driven innovation. Designers do not seem to work according to either one or the other part of the dichotomous perspectives. Therefore we are interested in finding out how they work and how to conceptualize their work with users within service design. In the light of this divergence between theory and practice our second research question is framed as follows: *In what ways do designers make use of these concept in practice?*

In this paper we first trace the theoretical landscape of service design and service management, followed by a description of the landscape of user involvement in design and the concept of DDI. We then share some observations from the field study, and finally present a conceptual model which points towards a more complex combination of UCD and DDI rather then the dichotomous relationship presented above.

THEORIES OF SERVICE DESIGN, SERVICE MANAGEMENT AND SERVICE INNOVATION

In the following section we first describe the discourses of service design and service management, including their differences. Thereafter we discuss the difficulties of separating radical and incremental innovation, especially in service design.

Service design

Service design as a practical activity within the designer's competence is rather new; it is often regarded as emerging around the turn of the century when live|work started as the first service design agency. The academic area that reflects upon the service design practice is even younger.

The early research in service design covered the intersection of *interaction design* and *service design* because the majority of the researchers had a background in this field (Blomkvist, Holmlid, & Segelström, 2010). Blomkvist and colleagues identify two major approaches in the early research in service design: The first is to widen the scope by connecting the emerging discipline to other non-design fields, like management and anthropology and the second approach is to explore and challenge the basic assumptions and methods in service design. Further trends are identified in a review of peer-reviewed material published in 2008-2009 (ibid.).

Service design practice is inherently customer and user centered (Holmlid, 2009), influenced by the co-creational nature of value creation in service (e.g.Vargo & Lusch, 2004). Stickdorn (2010) argues that service design is truly interdisciplinary, and therefore cannot be defined as one discipline. However, he presents five core principles: 1) user-centeredness (see next section), 2) co-creative, (ibid.) 3) sequencing, (visualized as a sequence of interrelated actions) 4) evidencing (making the service tangible) and 5) holistic (the entire environment of a service should be considered).

Maffei et al., (2005) argue for a merger between user-driven design approaches and contemporary innovation theory in service. To date there has been very little work done in this direction, although Sangiorgi and Pacenti (2008) coin the concept of *service design driven innovation* and define it as a user-centered approach to innovation.

Other streams within service design research have taken an interdisciplinary approach to include service management. Kimbell (2009; 2008) relates service design to "the service dominant logic" and the work of Vargo and Lusch (e.g,Vargo & Lusch, 2004, 2008). Han (2010) looks at the roles the designer takes within the service design process, using a stakeholder perspective. She formulates the concept of "communities of service" derived from "communities of practice". In her study of service design in the Australian tax authority Junginger (2006) relates service design to organizational change,

while Sangiorgi (2010) talks about transformational design at different levels: individual, organizational and societal[1].

Service management

Service management emerged from the marketing discourse in the 1970's. The starting point is often claimed to have been Shostack's article (Shostack, 1977) arguing that Kotler's marketing logic with its product focus was not suitable for service companies. During the following decade the academic focus was the goods and services dichotomy (Matthing, 2004) and IHIP[2] emerged as the best-known model to define and describe services (Zeithaml, et al., 1985). With the turn to service dominant logic (e.g., Vargo & Lusch, 2004) this dichotomy between service/products is questioned. Service and goods create a single customer experience from the customer's point of view. Consequently customer participation and co-creation have decisive roles in the recent service marketing literature. Firms cannot deliver value; instead value is co-created with the customer. But while the customer determines the value of service innovation, it is the firm that is responsible for developing the proposition (Jaworski & Kohli, 2006). That the firm is responsible for the management of the co-creation process and development of the value proposition is a position that is currently strongly held within the marketing literature.

Within the service management/marketing discourse service design has been treated similarly to how product design has been treated in relation to products. Edvardsson et al., (2000) describe it as, "In the design phase the service concept is developed into a service", thus making service design a dis-

1. There is a strong tendency within design to go from service design to social innovation, citizienship design or other similar concepts. We do exclude these in the overview since we are focused on the relation towards service management.

2. IHIP stands for **I**ntangibility – services are not tangible, therefore they cannot be judged before consumption, for example, compare a sweater with a bus trip; **H**eterogeneity – the people that take part in the service delivery process, provider and consumer, are unique at each occasion, therefore it is not possible to reproduce a service; **I**nseparability of production and consumption – services are consumed and produced at the same moment, hence the planning and development process must be different; **P**erishability – service cannot be stored or saved Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1985). Problems and Strategies in Services Marketing. *Journal of Marketing, 49*(2), 33-46.

tinct phase. This means that service design is seen as an "add-on", like styling or something that enters quite late in the process. This is fundamentally different from the descriptions of service design in the design discourse, where its holistic character is emphasized (e.g., Miettinen & Koivisto, 2009; Stickdorn & Schneider, 2010).

Service innovation and the difficulty of categorizing an innovation as radical or incremental

Research about *service innovation* mirrors early discussions within service marketing, namely, differences between services and products, and the extent to which the innovation processes are different (Gallouj & Weinstein, 1997). Innovation in service can be seen as *"renewal of human behavior"* (Sundbo, 2008:26), based on the view of service as *"fundamentally a behavioral act"* (ibid.). Innovations in service are often both technological and behavioral, as well as a combination of the two.

Service innovations can take place in the three dimensions of capabilities, processes and outputs (Skiba & Herstatt, 2009). Realizations of innovations in one dimension almost always require changes in the other two (ibid.,), which makes the relation between these three dimensions complex. From a service-logic perspective radical innovation is about changing the customers' role in the three other dimensions, i.e., as user, buyer and payer (Michel et al., 2008), as well as how the firm creates value through the integration of resources.

Gallouj and Weinsten (1997) argue that when the service is co-created with the customer, the dichotomy between radical and non-radical innovation is disrupted. They describe ad-hoc innovation as typically characteristic for service innovation, happening in direct relation to and interaction with the customer at the realization of service. Deciding what is a radical innovation in service becomes an issue of deciding what is a major change for the stakeholders in these various dimensions (Skiba & Herstatt, 2009).

Radical or incremental innovation in service is a complex issue related to the behavioral act and varying roles of multiple actors such as users and employees, multiple processes and the realization of service, and the suggestion is to regard radical/incremental innovation rather as a spectrum than a dichotomy.

THEORIES OF USER INVOLVEMENT IN (SERVICE) DESIGN

The customer has a central role in the development as well as the realization of service in both *service design* and *service management*. The focus on co-production - or even co-creation - of the service brings the customer/user into a central position. In the following section we give an overview of different approaches to the user within the service design area.

User-centered[3] design

Sometimes different types of user involvement are gathered under the common label of user-centered design (UCD) (Rosted, 2005). Other sources separate the different approaches and suggest that user-centered design is one approach that lays along side other user involvement methods (Sanders & Stappers, 2008).

Sanders and Stappers (2008) discuss two main – and opposing - perspectives of designer-user involvement, designing *for* users or *with* users. In the first perspective designers see themselves as experts and people as users/customers, the authors argue that the approaches of user-centered design is within designing for users. The main concepts in user-centered design include methods and approaches that aim at meeting the needs of the user by collecting, analyzing and interpreting data. The key issue is to find out different ways to approach user's needs, dreams and expectations, whether recognized or un-recognized (e.g., Rosted, 2005), "by experiencing the service through the customer's eyes" (Stickdorn, 2010:34).

Design *with* users takes another position where the people are seen as the experts in their respective domain (Sanders & Stappers, 2008). People are truly valued as co-creators. Methods and approaches from the participatory design tradition (Ehn, 1992; Greenbaum & Kyng, 1991) as well as user-centered design approaches from interaction design (Holmlid, 2009; Miettinen & Koivisto, 2009) are often related to this approach.

Human-centered design (HCD) is another concept, described by Krippen-

3. A note on the concepts centered and driven is probably needed. The words are seemingly used interchangeably as in user-centered innovation, user-driven innovation. However, an important distinction is that in the first case the user is in the focus but not explicitly leading the process, as in user-driven innovation. Supposedly the same would apply for the design-driven version.

dorff (2006:26) as "deriving its criteria from stakeholders lives and then made available to the community". Krippendorff studies design from a hermeneutic perspective as a meaning-creating activity. HCD is also described in the ISO 13407:1999 standard as consisting of four distinct principles with the focus on how to involve users and their demands in the design process, as well as the design process as such.

User-driven innovation is another similar concept used to frame the relation of the designer to the user in innovation processes, where the users actually lead the innovation process (Rosted, 2005), which can be related to the concept of lead-user innovation (von Hippel, 2005). In the product innovation context, where the innovation capability of the users is discussed, Skiba & Herstatt (2009) argues that there also are service lead users.

Design-driven Innovation

Design is making sense of things, argues Verganti (2003, 2008), influenced by Krippendorff's (2006) thoughts on designers' practice and focus on the human perspective and relation to human-centered design. However, this aspect is distanced in the concept of *design-driven innovation* (DDI) (Verganti, 2009). Here designers should take an expert position together with other experts in the network and then propose solutions *to* the customers rather than creating them together *with* the customers. Don Norman, a former spokesperson for user centeredness in the tradition of interaction and experience design, also argues against close interaction with users for reaching innovative results (Norman, 2010).

The concept of DDI suggests that rather than co-creating solutions with the customer, the firm and designer should propose *new meanings* to the market. The designers then take on an interpretative and propositional role rather than 'merely' functioning as the facilitator between the users and the company. Further, the focus moves from technological or functional innovation to innovation of meaning. Most examples of DDI are related to product design, but it is also suggested for service design.

Theoretical conclusions and the research problem

This paper takes a service design perspective regarding *service management* as a related sibling discipline. Though researchers study the same phenomenon – the user or the customer and how to create more value for and

with him/her – the areas have different roots: they refer to different empirical practices and professional groups (designers versus marketers). Another, more distant area is *design and innovation*, with its roots within the encounter between design and engineering culture. However, Verganti's notion of *meaning creation* that regards the design process as an inherently meaning-creating process can be applied within the service sector as well as for products.

There is, however, one obstacle in this transformation of Verganti's theoretical perspective into service design, namely, the concept of design-driven innovation. This is problematic for two reasons: first, theoretically it stands in sharp contrast to Vargo and Lusch's view that service must be, and always is, created with the customer and, second, we have practical difficulties in placing our empirical notions within the dichotomous approach of DDI.

Our research question therefore can be re-formulated as: *How to reconcile Verganti's notion of design as meaning-creating activity with a service design perspective that puts the user in the center?*

THE EMPIRICAL STUDY

This paper relies on interviews made in a broader ethnographic study that focused on professional design practice in a service context. One of the authors (Wetter Edman) followed a large Swedish design company and two of their service design projects with respective clients. One client was a multinational industrial company that was taking the rather common strategy to extend their service concept. The other client was a traveling company, i.e., a more traditional service company. As a researcher, Katarina Wetter Edman conducted fieldwork, shadowing persons in their daily work in the design and client companies (Czarniawska, 2007), participated in meetings and workshops (ibid.), and conducted both formal and informal interviews (Kvale & Torhell, 1997).

The interviews analyzed in this paper are part of data collected from a separate series of interviews with designers in three different design companies (one of them being the company of the ethnographic study and the other two companies we found most interesting to talk to in a Swedish context). The aim of these interviews was to obtain a broad view of how service designers work and how they make sense of the area of service design.

Eight designers[4] employed at three different Swedish design consultants were interviewed, individually or in couple. The material also includes a recorded meeting with 2 designers and a client. They were all experienced design practitioners, but their experience of service design differed. The companies ranged from (1) mainly focusing on product and interface design, to (2) having an explicit focus on design strategy, and (3) having a wide range of design competencies but with roots in product design, moving towards service design through interaction design and design management.

The interviewer used an interview guide inspired by Kvale (1997) see Figure 1 below.

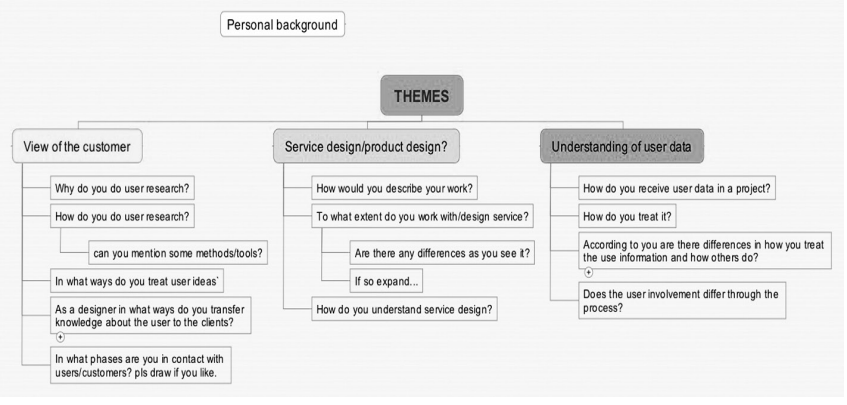

Figure 1. Interview guide

All the interviews were recorded and transcribed by the researcher. The total material consists of about 100 pages of transcribed interviews. For this paper we read the transcribed interviews and independently looked for interesting quotes that relate to our research questions. After gathering the quotes and comments (a total of 55 pages), we worked together to thematise the quotes and relate the themes to arguments of the paper. As the reader might notice, we have been inspired by, but not followed the grounded theory

4. All but one of the 8 designers interviews are product/industrial designers by training and experience, the eighth designer was trained as a graphic designer. They are all increasingly working with service design.

technique (Glaser & Strauss, 1967). Instead, we have used a more abductive reasoning (Alvesson & Sköldberg, 2008; Danermark, 2003), where on the one hand we problematized "the design-driven innovation" perspective and its relevance within the service design area, and on the other hand used the data we already had to validate our intuitions.

When looking at the validity of the material, the context of the interviews must be taken into account. The interviews took place in Sweden in a Swedish context (although all the companies have clients in Sweden and abroad and therefore could be regarded as international or part of the western European "international" sphere). The year was 2009, which was a specific period in the development of service design practice. However, the narrative style and the transparent way of reasoning in our analysis makes it possible for the reader to judge for him/herself the trustworthiness of the reasoning and conclusions.

NOTES FROM THE FIELD

The following stories exemplify the difficulties of placing them in either design driven innovation or user driven innovation.

User driven does not necessarily mean that the designer is a script for the user

The designers we talked with – who work within the Scandinavian tradition, though some of them come from other countries and all work internationally -- all stress the relation with the user as something very positive and important. This is exemplified by the following quote:

> "I think it is beautiful when a person likes a solution but he doesn't know why. But he knows he likes it… and I think that my challenge is to realize why he likes it. If I ask him he says 'I don't know.'"

The quote does not only tell us that the designer likes the relation to the user and thinks it is important. It also shows that he places himself - the designer - in the center of the meaning creation process of understanding what is going on and what is needed. It also tells us that the designer wants his relation to the user to be without any mediator such as marketers or other investigations.

The quote also demonstrates that the designer does not regard himself as a script for the user. On the contrary, designers stress the importance both of seeing what the user does not see, and the importance of the designer's own creative ideas:

> "Participatory design, or user driven design, there is a place for it, I see it as a part of the process. Definitely, but… not necessarily that they [the users] are the ones that are going to grab the pen and design the final solution. They [the users] design in little steps, little pieces of the puzzle."

Though he claims he works with "participatory design", the design ideas do not follow directly from the user; it is rather "a part of the process" or "little pieces of the puzzle". The designer's role is to have the whole puzzle and put it together, to look from a more holistic perspective and integrate it with other actors in the network. It is neither a distance from the user nor from a broader network. It is difficult to place this designer within the dichotomy of UCD and DDI because he belongs to neither of them, or maybe to a combination of both of them.

Design (innovation) as an oscillating movement/spiral between user and design centeredness

The designers we spoke to all stressed that they worked with the user in different ways throughout the design process. The type and intensity of involvement of users/customers varied. There also seemed to be different notions towards what kind of ideas can be generated in cooperation with the user, and what knowledge could be created within different stages of the process.

> "[In the early process], they [the customers] are more of a source of inspiration and a well of knowledge. It is not until you clearly know what the area will be that they actually can be a part of the creation."

> "You couldn't [involve users] at the stage we're at; it's really high [abstraction] level. Nothing tangible to even give [to] users, you couldn't. It's too high level to bounce ideas to users."

In the early stages there is an emphases on the inspirational quality of the contact with users and their context. The information gathered is, as the first quotation above mentions, more of a source of inspiration than directions on what to create. Later, as in these quotations the designer see himself or herself as superior at understanding abstract relationships in relation to the user/customer. The designer takes an expert position and the user is the layman. In this stage we can see that the process is directed in two ways; in the first part of the process it is user centered, the designer needs and wants the users for inspiration. However, the process is also design driven; the designer moves away from the users and demands space for his or her own reflection, where the designer is in control. But then, later in the process, when the problem/solution is more specified, the users are again invited to co-create with the designers. If the users are involved too early there is a risk that their ideas lack relevance for the project:

> "It is not bad and they can do fantastic things, things that this company usually doesn't do, but it isn't new and therefore contradicts the basic thoughts of innovation."

It appears that the designer thinks that customers/users lack the contextual knowledge that is relevant for the commissioning firm. This knowledge and awareness is part of what the designers develop in the more design-driven parts of the process, which also points towards awareness of where the design practices has one of its core skills, as interpreters of the users context and meanings:

> "[We] document it [the users context], and include it. Many times it has some changes done to it and then we can't start from them SAYING this. Instead we have to think about what they MEANT when they said it. This is a job that we often have to do and then we integrate it [into the process]. "

The same designer says:

> "From our point of view there is no possible development that can be done without the involvement of customers."

The quotation emphases the importance – from the designers' perspective – of interpreting what the user is saying. The designers put themselves as an interpreter and transformer of what the users say. This interpretative skill is necessary to do a good design job. However, this "design-driven" interpretation is not to the same as a total distancing from the customers. What the users say and do is the most important material the designers have to work with, as expressed in the second quote; however, the designer is still needed as an interpreter.

"It's pink and it flies and you know … it glows" – understanding the user is not easy

The designer in the following example also remains in between UCD and DDI. The main trust lies with the designers' own processes, but a movement in-between the dichotomy is apparent. Service design seems to ask for an increasing amount of co-creational activities, and the designers in this study (who are moving from product design to service design) increasingly integrate users in the creative parts of the service design work. However, they sometimes find it difficult to know how to work with the co-created material.

> " [The users ideas] are kind of wild and in loud colors and often go for this dream thing. This dream, it's not like a tangible thing. And what do you [the user] mean by 'it's pink and it flies and.. you know … it glows'? "

Here, the designer first takes on the role of an expert and judges the way the ideas are presented as naïve, and therefore not valid. In this first statement there is a total rejection of the users ideas, they are seen as invalid and also presented in a way that is incomprehensible. However, somewhat later the same designer says:

> "After we had kind of done this as well [their own normal design process], this was like first time we'd done it, so we are learning how to interpret these ideas, so then

> ”Ah ha!!!” If you take this through the pinkness and the fly-ness, they [the users] had specifically told us what they wanted in a kind of emotional themes. “

Here, an understanding of what the user ideas could bring emerges. The statement develops – from a rejection of the users ideas and representations towards showing an interest in them. Interesting enough the designers had to conduct their own, proper design process in parallel to understand what the users expressed through their sketches.

> “We didn’t know how to understand it [the representations]. It wasn’t until this point that we saw exactly what we were trying to create. They [the users] had given us new input and ideas to go in the directions they wanted. […] We need to better understand how to interpret people’s co-creation ideas.”

Finally, the designer acknowledges the quality of the users ideas and representations as positive contributions to the design process. However, the designer certainly does not take the representations from the users literally into the design process. Instead, the designer tries to interpret the meaning and integrate that into his or her own proposal. Again. It is impossible to place them into the dichotomy of UDI or DDI.

Introducing “the meander” as the relation between the user-designer as a bridge between UDI and DDI

Our empirical material shows that when the designers transfer from a product design practice to a service design setting, they are constantly moving between *user centered* and *design-driven* perspectives. With each move their understanding of the users increases; therefore we can talk about a spiral of increased understanding or a dialectic process. We choose to use the metaphor of *a meander* to emphasize that there are certain places in the flow of the relation where the designers work themselves or in their own network (similar to design-driven innovation – see Verganti) and other places where they work

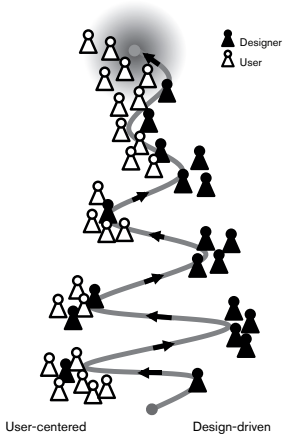

Figure 2. The Meander

in close relation with the user in different ways (similar to user-centered design), see Figure 2. Based on the material presented above, we argue that it is not possible to draw a sharp line between design-driven innovation and user-centered design, at least not in service contexts.

We propose that the service design process consists of several moves, as in a spiraling movement. With each move the designers move either closer to the users' context and networks or retract towards the designers' context where integration with several other perspectives is possible. We suggest that meaning creation activities are mainly performed in the stages where the designers attempt to be in their own context. In this way this concept aligns with the concept of design-driven innovation, however, we argue that, at least in service, this activity is not possible without close interaction with the users at various stages throughout the process.

SUMMARY

In this paper we have demonstrated that the dichotomy between design driven innovation (DDI) and user centered design (UCD) that Verganti proposes for radical innovation is problematic in the service design context. Instead, we propose a new model that builds on the metaphor of "a meander". This suggests that the design process encompasses moments of both user driven relations and moments of design driven innovation. These moments complement each other in a hermeneutic spiral – or a meander. The concept of a meander is also chosen to point at the designers resting in different places or having phases of both UDI and DDI within the same design process.

References

Alvesson, M., & Sköldberg, K. (2008). *Tolkning och reflektion : vetenskapsfilosofi och kvalitativ metod*. Lund: Studentlitteratur.

Blomkvist, J., Holmlid, S., & Segelström, F. (2010). Service design research: yesterday, today and tomorrow. In M. Stickdorn & J. Schneider (Eds.), *This is service design thinking* (pp. 308-315). Amsterdam: BIS Publishers.

Czarniawska, B. (2007). *Shadowing and other techniques for doing fieldwork in modern societies*. Malmö: Liber.

Danermark, B. (2003). *Att förklara samhället*. Lund: Studentlitteratur.

Edvardsson, B., Gustafsson, A., Johnson, M. D., & Sandén, B. (2000). *New Service Development and Innovation in the New Economy*. Lund: Studentlitteratur.

Ehn, P. (1992). Setting the stage for design as action : artifacts for participatory design in theory and practice. *Nordisk arkitekturforskning 5:4*(4), 49-59.

Gallouj, F., & Weinstein, O. (1997). Innovation in services. *Research Policy, 26*(4-5), 537-556.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory : strategies for qualitative research*. Chicago: Aldine.

Greenbaum, J., & Kyng, M. (1991). *Design at Work: Cooperative Design of Computer Systems*. Hillsdale, NJ, USA: L. Erlbaum Associates Inc.

Han, Q. (2010). *Practices and principles in Service Design; stakeholders, knowledge and Community of Service.* (Doctoral dissertation), University of Dundee, Dundee.

Holmlid, S. (2009, Nov). *Participative, co-operative, emancipatory: From participatory design to service design*. Paper presented at the DeThinking Service ReThinking Design, First Nordic Conference on Service Design and Service innovation, Oslo, Norway.

Jaworski, B., & Kohli, A. (2006). Co-creating the voice of the customer In R. F. Lusch & S. L. Vargo (Eds.), *In The Service-dominant Logic of Marketing: Dialog, debate, and directions.* : M.E.Sharpe.

Junginger, S. (2006). *Change in the Making: Organizational Change through Human-Centered Product Development.* (Doctoral dissertation), Carnegie Mellon University, Pittsburg.

Kimbell, L. (2009, Oct). *Service-dominant logic and design for service*. Paper presented at the Service Design Network Conference, Madeira.

Kimbell, L., & Seidel, V. P. (Eds.). (2008). *Designing for services: Multidisciplinary perspectives: Proceedings from the exploratory project on designing for services in science and technology-based enterprises.* Oxford: Saïd Business School.

Kleinsmann, M., & Valkenburg, R. (2008). Barriers and enablers for creating shared understanding in co-design projects. *Design Studies, 29*(4), 369-386.

Krippendorff, K. (2006). *The semantic turn: a new foundation for design*. Boca Raton, FL.: CRC Press.

Kvale, S., & Torhell, S.-E. (1997). *Den kvalitativa forskningsintervjun*. Lund: Studentlitteratur.

Maffei, S., Mager, B., & Sangiorgi, D. (2005, Sep). *Innovation through service design. From research and theory to a network of practice. A users' driven perspective*. Paper presented at the Joining Forces, Service Design Network Conference, Helsinki.

Matthing, J. (2004). *Customer Involvement in New Service Development*. (Doctoral dissertation), Service Research Center - Karlstad University.

Michel, S., Brown, S., & Gallan, A. (2008). An expanded and strategic view of discontinuous innovations: deploying a service-dominant logic. *Journal of the Academy of Marketing Science, 36*(1), 54-66.

Miettinen, S., & Koivisto, M. (2009). *Designing services with innovative methods*. Helsinki, Finland: TAIK/ Kuopio Acadademy of Design.

Norman, D. (2005). Human-Centered Design Considered Harmful. *interactions, XII,* 14-25.

Norman, D. (2010). Technology First, Needs Last: The Research-Product Gulf. *interactions, XVII*.

Prahalad, C. K., & Ramaswamy, V. (2004). Co-creating unique value with customers. *Strategy & Leadership, 32*(3), 4-9.

Rosted, J. (2005). *User-driven innovation: Results and recommendations*. Copenhagen: The Ministry of Economic and Business Affairs' Division for Research and Analysis.

Sanders, B.-N., Elizabeth, & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign, 4*(1), 5-18.

Sangiorgi, D. (2010, Dec). *Transformative Services and Transformation Design*. Paper presented at the ServDes, The 2nd Nordic Conference on Service Design and Service Innovation. Linköping, Sweden. Retrieved from http://www.servdes.org/pdf/sangiorgi.pdf

Sangiorgi, D., & Pacenti, E. (2008, Nov). *Emerging practices of service design driven innovation*. Paper presented at the Service Design Network Conference, Amstedam.

Shostack, L. G. (1977). Breaking free from product marketing. *Journal of Marketing, 41*(2), 73-80.

Skiba, F., & Herstatt, C. (2009). Users as sources for radical service innovations: opportunities from collaboration with service lead users. *International Journal of Services Technology and Management, 12*(3), 317-337.

Steen, M., Kuijt-Evers, L., & Klok, J. (2007, Jul). *Early user involvement in research and design projects- A review of methods and practices*. Paper presented at the 23rd EGOS Colloquium, Vienna.

Stickdorn, M. (2010). 5 principles of service design thinking. In M. Stickdorn & J. Schneider (Eds.), *This is service design thinking* (pp. 24-45). Amsterdam BIS Publishers.

Stickdorn, M., & Schneider, J. (2010). *This is service design thinking*. Amstedam: BID publisher.

Sundbo, J. (2008). Innovation and involvement in services. . In L. Fuglsang (Ed.), *Innovation and the creative prosess. Towards innovation with care*. Cheltenham, UK, Northampton MA, USA: Edward Elgar.

Vargo, S., & Lusch, R. (2004). Evolving to a new dominant logic of marketing. *Journal of Marketing, 68*(1), 1-17.

Vargo, S., & Lusch, R. (2008). Service-dominant logic: continuing the evolution. *Journal of Academic Marketing Science, 36*(1), 1-10.

Verganti, R. (2003). Design as brokering of languages: Innovation strategies in Italian firms. *Design Management Journal (Former Series), 14*(3), 34-42.

Verganti, R. (2008). Design, meanings, and radical innovation: A Metamodel and a Research Agenda. *Journal of Production and Innovation Management, 25*(5), 436-456.

Verganti, R. (2009). *Design driven innovation : changing the rules of competition by radically innovating what things mean*. Harvard Business Press: Boston.

von Hippel, E. (2005). *Democratizing innovation*. Cambridge, Mass.: MIT Press.

Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1985). Problems and strategies in services marketing. *Journal of Marketing, 49*(2), 33-46.

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