

Storied Design:
Narrative matters
in design
presentation

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Helsinki, May 2016

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Glossary

Argument – an instance of argumentation.	Object of storied design – In storied design, a representation that establishes and explains a relationship(s) with regards to the object of design, typically performed with an explanation about it.
Argumentation – In design, argumentation is utilizing language and rhetorical figures to instruct a specific audience.	Plot/narrative plot – Refers to a cause-and-effect that drives the contents of the story or simply a sequence of events, where the events are somehow related.
Designated narrative plot – In storied design, a specific narrative plot along which the object of design is storied.	Process of objectification – In storied design, a process in which the object of design is increasingly objectified through representations that are both storied and designed.
Dramatic development – In storied design, a change that occurs over time with regards to the object of design, which is made readily identifiable to a specific audience, may this be in demonstration and/or a story and/or visual representation, as dramatized on stage.	Rhetoric – Rhetoric in design broadly construed as instruction.
Interplay of objects of storied design – In storied design, a sequence of objects of storied design that establishes a relationship(s) to object of design as result.	Rhetorical – A design presentation is rhetorical when it instructs a specific audience through the use of language and rhetorical figures.
Kind of object of storied design – In storied design, the kind of object that is subject to a relationship(s) that develops over time.	Rhetorical figure – In design, a rhetorical figure is a visual image that can help to instruct a specific audience in particular ways.
Narrative/Narrative account – A story told by someone.	Staged interplay – In storied design, to show and explain.
Narrative structure – An organization in two parts: the content of the story and the plot in which the story is organized.	Storied – Something is storied when it is placed along a specific plot or sequence of events.
Narrative weight – In storied design, narrative weight allows grounding of a narrative account in concrete facts and artefacts embodied by object of design.	Story – See narrative/narrative account.
Object of design – In storied design, the material constitution of a particular design as final outcome.	

Abstract

Presenting a design can be straightforward, when it concerns an object that can be 'brought into the room' for demonstration. In the fields of interaction and service design, however, the object of design typically cannot be presented this way. Rather, a disposition needs to be developed that pertains to both a design as well as its narrative counterpart, in order to represent the design in a particular way - its outcome being a *storied design*.

This thesis is a study of the structure of design presentations given to a general audience in the fields of interaction and service design. The purpose is to clarify what is involved in presenting a design in these fields of design practice and, through this clarification, explore how it differs from a more conventional product design presentation. It establishes the concept of *storied design*, which is arrived at through the empirical study of a set of video recordings of design presentations. The study looks closely at how interaction and service designers talk, argue, represent and explain their designs. A theory emerges through a process of grounded theory in which the concepts of *storied design* are successively elaborated.

This study draws from, and contributes to, design research concerning the role of narrative, storytelling and the use of visual material in design, with a focus on interaction and service design practice. The resulting theory explains why an interaction or service design presentation relies on representations of the object of design, rather than a demonstration of the actual object. It shows that such an object does not 'speak for itself' but is given meaning through a narrative that needs to be designated; that the designation of such a narrative is key to constituting how the object is to be understood by a given audience; and that such a narrative can be various and is not necessarily determined by the object, although it may remain conditioned by the object. The theory is further put to use in showing how design methods provide the narrative means, which are mobilized in support of representing the object of design in various ways during presentation. It draws attention to the conclusion that the interaction or service design itself may only exist in the collection of representations and can be understood as a *storied design*.

The theory allows for distinctions to be drawn in storied design practices between interaction and service design presentations and more conventional product design presentations. This distinction to interaction and service design presentations allows for further exploration on how the development of a storied design and to what degree the scope of what is storied about the object of design pertains to a strategic value in indicating what *can* and *cannot* be designed about it.



1 Introduction

Presentations are a well-established and effective means of sharing information about business, industry, education and design in an organizational context (Niamtu 2004; Adams 2006; Gabriel 2008; Stark & Paravel 2008; Hill et al. 2012). Presentations can be considered to constitute a contemporary genre of communication that has formal constraints, particular conventions and expectations regarding how a presentation is given and received (Günthner & Knoblauch 1995; Yates & Orlikowski 2007; Luckmann 2009).¹ The presenter and audience alike share an understanding of how it is supposed to work. One is supposed to go ‘on stage’ while the audience participates in ways appropriate to that particular setting, whether it is a classroom, meeting room, confined studio or a large conference hall.

At the outset, design presentations would not seem to be very different from other presentations. The instance of showing and telling about an object of design, ranging from the most intimate design presentation within the confines of a studio² to a large-scale product launch³, can be understood as the staging of such a presentation. However, there is something different about a design presentation. The fact that a design presentation represents and relies on an object of design – where the result reflects ‘material’ investigations, expressions of a built environment that ‘speak’ to an external audience (Eckert & Boujut 2003; Stevens 2013) – makes such a presentation stand apart from presentations we may find in other professional fields. To emphasize the point, a design presentation highlights a particular kind of object. This object is not a policy or a marketing strategy or a business plan. It is not a list of requirements and certainly not a lesson on physics or history. The object is first and foremost a design, although the aforementioned aspects may be part of that, a precursor of that, or a result of that.

This characterization of the design presentation is not likely to be different in the case of interaction and service design. What does seem to be different, however, is the nature of the object and how this difference sets forth a different way of presenting such an object. It is this distinction that pertains to the core question that motivated this thesis. *What difference does the object of an interaction design or a service design make in a design presentation? As a result of that difference, how is the design presentation performed differently in interaction or service design and product design?*

The idea that a design can be so good that its usefulness is self-evident without further explanation, if that can ever be the case, certainly does not hold true for interaction and service designs. Demonstrating a design may be relatively straightforward when the design is an independent entity that is movable and can be ‘brought into the room’, and when its properties are readily accessible, clearly demarcated and defined in certain material dimensions and properties. In interaction and service design, however, this is not commonly the case. The object of design tends to be ‘heterogeneous’ (Secomandi & Snelders 2011; Kaptelinin & Bannon 2011), ‘distributed’ (Artman & Waern 1999) and subject to ‘dynamic circumstances’ (Arvola & Artman 2007; Stolterman 2008; Myers et al. 2008; Ozenc et al. 2010). The explaining that needs to be done tends to escape the immediate bounds of the object of design to a different extent and in a more fickle fashion than its material dimensions (Redström 2006; Redström 2008). Such conditions make the presentation of interaction and service design different, because the means of representing the object are different.

This difference is further pronounced in the number of methods that have been developed over the years to represent such an object of design in designing interactions and services. It is not only the kind of object of design that is different. In interaction design and service design, the methods and approaches employed in the mode of production are different as well (Buchanan 1992; Jonas 2001; Hyysalo 2003; Morelli 2007; Keinonen 2009a; Bjögvinsson et al. 2012) and likewise the skill set that is required to exercise these professions (Morelli 2003; Redström 2006; Valtonen 2007; Keinonen

¹ A genre represents a resource for action. Some go as far as to say that any action occurs only within definite genres. In this thesis, it suffices to say that the presentation form, as a genre, indicates that it is recurrent enough and consistent enough in terms of distinct features to make it different from other forms of communication. It indicates an artefact that can be studied or a unit of analysis that may prove profitable in making.

² For instance, see Fleming 1998.

³ For instance, when Steve Jobs presents the iPhone: <http://www.engadget.com/2007/01/09/live-from-macworld-2007-steve-jobs-keynote/>

2009b; Thorpe 2010). Various methods include, for instance, interactive prototyping (Isbister et al. 2007; Kurvinen et al. 2008; Ståhl et al. 2009; Lucero et al. 2009), film and video (Newell et al. 2006; S. P. Ylirisku & Buur 2007; Newell et al. 2011), storyboarding and design-oriented scenario building (Bødker 2000; Newman & Landay 2000; Blythe & Wright 2006; Morelli 2007; Myers et al. 2008), drama techniques (Mehto et al. 2006; Jacucci 2006; Newell et al. 2006; Rodríguez et al. 2006; Brodersen et al. 2008; Buur & Larsen 2010; Liao & Person 2012; Buur et al. 2013; Liao & Person 2015) and storytelling (Gruen et al. 2002; Parrish 2006; Dindler & Iversen 2007; Triantafyllakos et al. 2010; Spaulding & Faste 2013; Liao 2013). Such methods address the problem of dealing with an object that does not allow itself to be easily represented in the first place.

Such changes in both the object of design and the methods of designing find their way into the design presentation and affect the ways in which a presentation is and can be given. How do designers cope with that? This was the starting point of this study. There is no better way to observe this than by catching designers doing it in the act. In this respect, the instance of the ‘final presentation of design’ is a good place to investigate this act for two basic reasons. First, the design may be expected to be in a more or less finished state: there is an object of design to speak of. Second, the final presentation of design is likely to be given publicly, where the design and the activities involved in designing it need to be justified to the audience. Both the object of design and the performance of presenting it are, therefore, explicitly available for study.

The aim of this thesis is 1) to study presentations of more-or-less finished objects of design, 2) to clarify what is involved in presenting such objects of design, and 3) through this study, to explore whether there is a fundamental difference in how interaction designs and/or service designs are presented in comparison to more conventional discrete product designs. It is these three items that I aim to study and I seek to do this through empirically developed grounded theorizing, where I combine a grounded theory approach with video analysis.

This inquiry has contemporary relevance in the face of today’s trends and challenges in interaction design and service design. In this regard, the study constitutes new knowledge and amounts to a contribution to design research. However, practitioners and educators in these branches of design may also benefit from this study. In design research, it has been noted that these branches of design create objects that deal with systems and environments or platform-level solutions (Buchanan 2001b; Morelli 2003; Morelli 2007; Löwgren & Stolterman 2004; Keinonen 2009b). Research questions address differences in the tangibility of objects of design (Redström 2006; Secomandi & Snelders 2011; Kaptelinin & Bannon 2011). The guiding question here is that *‘If there is a distinction to be made in the kind of object, how does this affect the performance of its presentation?’* And to understand this, one needs to answer to the question *‘What elements does a design presentation consist of and how do they function in the explanation of a design?’*

Further research has addressed the relevance of storytelling, talk and argumentation as wider communicative practices within design teams and design processes and how visual production plays an important role within that (Fleming 1998; Lloyd & Deasley 1998; Lloyd 2000; Stumpf & McDonnell 2002; Dong 2007; McDonnell 2009; Glock 2009; Oak 2012; Oak 2013). This study contributes to this body of research by looking closely at how interaction and service designers talk, argue, visually represent and explain their designs within public design presentations to a general audience. The focus of this study is on the staged interaction between verbal and visual elements during presentation. These presentations are public in the sense that they take place outside the design studio, where the general audience may consist of designers and clients (or potential clients), but also include the general public.

As an entry point, I have identified a specific narrative practice that has gained critical significance within interaction and service design presentations today, a practice that I have termed *storied design*. At the simplest level, storied design takes place when designers explain how an interaction or service design works, and in so doing, particular properties or functionalities and the processes that lead to the design need to be

storied in order to explain its purpose to a general audience. Storied design becomes more complex when one looks at how the use of visual material, speech and bodily movements, considered as a whole, form a skilled performance in which design-specific knowledge is conveyed in to an audience.

The empirical basis of this research is in comparative video analysis of 12 video recordings. Amongst them are 6 service design presentations given by some of the most talented students in Finnish design schools and 5 interaction and service design presentations given by leading interaction and service design professionals in the Helsinki area. These student and professional design presentations were selected for three basic reasons. First, they all present either a service design or an interaction design. Second, the design in question was expected to be in a more or less finished state. Third, the presentations were given to the general public and had a maximum length of 30 minutes. Both the object of design and the act of presenting it are, therefore, explicitly available for study. The 12th video recording shows the presentation of an artificial chamois leather. This presentation was selected for the basic reason that it contained a discrete hand-sized object of design that can provide a counterweight to the kind of object of design presented in the student and professional design presentations. A comparison between the different service design objects and a discrete product design object allows me to delineate the differences between these objects and how they impact the performance of representing the respective objects during presentation.

Through a grounded theory approach (Glaser & Strauss 1967), I set out to analyze these videos of design presentations and clarify what is involved in presenting design, and through that, identify the nature of the problem in interaction and service design presentations, which storied design addresses. I clarify the function of storied design in interaction and service design presentation, as well as the skill that is required in the process of storied designing. While analyzing this phenomenon, I reason why both a storied design and a process of storied designing are necessary and provide a method for tackling the nature of the problem in the presentation of interaction and service designs.

The notion of a design presentation implies the presence of a receptive audience. In this regard, there is no better place to start than in a country such as Finland, where design has played a significant role, historically, in the forming of a Finnish national identity both at home and in the international arena (Korvenmaa 2009); where the field of design has received specific attention to be developed professionally (Valtonen 2007); where design has a visible presence in the urban environment (Koskinen 2009)⁴; and where design has customarily, and to date, enjoyed wide public attention (World Design Capital 2012, annual Helsinki Design Week, and various public initiatives that keep design in the public eye). Indeed, there are few countries in the world where design enjoys such promotion at a national/international level and where the field of design has gone through such significant evolution (Valtonen 2007). Moreover, service design has proliferated rapidly in Finnish private and public sector alike during the last few years.

The thesis is organized as follows. In Chapter 2, I briefly position the study of design presentations within a wider field of design research. I broadly indicate the empirical scope of this study by demarcating the object of design and distinguishing its particularities in the context of design presentation. I briefly touch upon a number of approaches that are useful in further establishing the scope and focus in the study of the object of design in design presentation. I then reason why none of them provide a fit repertoire for me to use and justify my own methodological choices in regards to studying interaction and service design presentations. In Chapter 3, I explicate my methodology, which combines a grounded theory approach with the method of video analysis. I discuss the various practical problems involved in this and describe my own distinct route to the study of interaction and service design presentations. I present the 12 videos that were selected for comparison and explicate my process of theoretical sampling and comparison.

In Chapter 4, I present the basic concepts in storied design. I do this with the use of two of the student designers' presentations. These presentations concern service

⁴ The presence of design is also notable in the many public spaces, such as libraries, restaurants and cafeterias, which are associated with famous Finnish designers, as well as the many furniture, stationery, and tableware designs that are regularly used within these spaces.

designs for psychiatric care. I first establish the scope and focus of analysis on the interaction that takes place on stage during the presentation, through which I can analyze the act of *storied designing* in showing and telling about a particular design. I draw out the basic concepts in storied design from these two presentations individually and by comparison of the two student groups' differing strategies in presenting their designs. I explicate each of the basic concepts via a detailed elucidation of staged interaction features of the two presentations. In providing this account, I aim to retain parts of the analytical exposition of grounded theorizing and how the analysis is grounded in the video material. As such, it is constructed to show the reader the most important parts of the analytical process that explicate the basic concepts in storied design. Three lines of inquiry are suggested in this chapter in regards to: 1) the nature of what is *storied* and *designed* with regards to the object of design in service design presentation, 2) how *representations* of the object of design, rather than the actual object of design, are mobilized in support of accounting for it and 3) how the scope of what is storied about the object of design indicates what *can* be designed about it. Together with the basic concepts in storied design, these three lines of inquiry provide further scope and focus for the empirical chapters that follow.

In chapter 5, I use the basic concepts in storied design to analyze the demonstration of a discrete product. This allows me to draw a distinction between a discrete product that can be demonstrated during the presentation and service design presentations. I do this with an internet-available recording of a salesman pitching an artificial chamois leather. The obvious concreteness of the object provides a counterweight to the service designs presented in the student presentations. It allows me to focus on the interaction that takes place on stage between the physical properties of the object and what is *storied* about it within the demonstration. I reinforce some of the key concepts in storied design by showing how the demonstration of the object is both *grounded* in the physical properties of the object and *storied* in regards to what these physical properties do over time. In a comparison with the student service design presentations, I further reason that in contrast, the presentation of a service design relies on representations of the object, rather than a demonstration of the object, because the object of design may not allow for a demonstration in the first place. I show that the object does not 'speak for itself' but is given meaning through a narrative plot the presenter designates; that the designation of such narrative plot is key to constituting how the object is to be understood by an audience; and that such narrative plots can be various and may not necessarily be determined by the object, although they may remain conditioned by it.

In Chapter 6, I present a detailed deconstruction, using the concepts in storied design, of one of the professional service design presentations that concerns the design of an interior. In doing so, I answer to the second line of inquiry set out in chapter 4 by drawing out in particular the way in which the presentation makes use of a sequence of devices to present a servicescape. These comprise a variety of representations of the object of design including a 'customer journey', a 'visual aesthetic', a 'prototype', a 'floorplan', and the 'servicescape'. As well as consolidating the concepts in storied design further, this chapter suggests that the service design itself, rather than being an object that is presented, may only exist in so far as what is represented about it - the servicescape exists in the collection and sequence of representations that the presentation entails. This implies the conclusion that the servicescape itself is a *storied design*.

Chapter 7 takes a similar format to chapter 6, here focussing on the presentation of an interaction design project that involves the design of a website. In this chapter, I continue the third line of inquiry set out in chapter 4 by elaborating on the relationship of storied design to what *can* and *cannot* be designed in an interaction design context. Through continued comparison to the service design from the previous chapter, I suggest that, similarly, the interaction design may only exist in so far what is represented about it, where the user interface design itself can be understood as a storied design. I further consolidate the function of a storied design (a servicescape; a user interface) as a necessary

method in representing an object of design (an interior; a website) that may be difficult to present otherwise. I further explore the relationship between what is storied and designed in the representation (a servicescape; a user interface) of the object of design (an interior; a website) during the presentation itself, and the process of identifying what *can* be designed about the object of design (furniture; a turn slip machine; spatial arrangements; interface tabs; menus; click buttons; live feeds; etc.). In doing so, I simultaneously reason what *cannot* be designed about the object of design (an experience; an interaction) and that the function of storied design, as a method in representing the object of design on these aspects, becomes particular apparent here. I further reason whether the resulting framework of storied design allows one to learn more about the design processes that took place in advance of the presentation. It seems that the studied service design presentations reflect a method of designing, where the development of a storied design had a function within their respective processes of designing the objects of design.

In Chapter 8, I discuss the theory of storied design, the overall implications of the theory for design research and my overall experience in combining a grounded theory approach and video analysis to the subject.



2 Background

In the previous chapter I narrowed the scope of this study to the fields of interaction and service design. In this chapter, I take a step back to briefly discuss and to locate the study of design presentations amongst a wider scholarship of design research. I look at the following approaches as relevant to present study: ethnomethodology and conversation analysis (Stumpf & McDonnell 2002; Glock 2009; Oak 2000; Oak 2012; McDonnell 2012), rhetorical criticism (Fleming 1997; Fleming 1998; Stumpf & McDonnell 2002; McDonnell 2009; Luck 2009; Oak 2012; Oak 2013) and narrative analysis (Lloyd 2000; Lloyd 2002; McDonnell et al. 2004; Oak 2006). I explain why these approaches stand out and how they further sensitized my approach to the study of design presentations theoretically. Yet, I also point to why none of these approaches provided me with a ready repertoire to follow, which gave me a reason to develop my own approach.

2.1 The study of design presentations

Whatever name one gives to designing, whether this is between ‘purpose and function’ (Rosenman & Gero 1998), ‘actions and intentions’ (Galle 1999), ‘thought and object’ (Bucciarelli 2002), or ‘vision and specification’ (Löwgren & Stolterman 2004), the fact remains that an object of design needs to be presented in order to assess any of these concerns. Although communicating the results of designing has always been considered an integral part of designing (Cross 2006), the empirical scope of interest has predominantly been limited to the beginning and mid-range processes of designing, rather than the final presentations of designing. Typical situations considered here concern individual designers (Dorst & Cross 2001), groups of designers (Luck 2009; McDonnell 2012; Oak 2012), or entire organizations (Cuff 1992; Bucciarelli 1994; Lloyd 2000). Although one may find studies of incidents that one could call a design presentation (Schön 1983; Bucciarelli 1994; Fleming 1997; Fleming 1998; Paton & Dorst 2011), such incidents address typical situations of designing where a great deal of the object of design is underdetermined and shrouded in uncertainty (Goldschmidt 1997; Bucciarelli 2003).

The present study also considers a typical situation in designing, but one that takes place in formal design presentations of more or less finished objects of design. That is, the empirical scope of this study is on an instance of designing where a level of uncertainty certainly still exists, but certainly to a lesser extent than what is typically discussed in the aforementioned studies. Within this context, I focus on the object of design that is put forward in a presentation, where the presentation itself can be considered part and parcel of the object of design.

The types of design presentations studied here are publicly staged design presentations of more or less finished objects of design that are presented to a general audience. At the outset, I can identify two methodological delimitations that differ from the previously mentioned studies. First, such design presentations often employ slides, projectors and the supporting software technology, such as PowerPoint or Keynote. Second, although a presentation is essentially an audience-facing performance that is socially constructed with the purpose of being watched and heard, the interaction that takes place between the presenter and audience is typically ‘minimal’. It is minimal because, under such conditions, the presenter commonly has a prepared presentation deck and script, which is then performed in a monologue fashion, going through one slide after the other. These conditions limit the possibility for improvisation and/or interaction between presenter and audience.

In this regard, a design presentation represents a very specific kind of social context for analysis. In practice PowerPoint as a social format dominates the design presentation (Adams 2006; Yates & Orlikowski 2007; Knoblauch 2008; Stark & Paravel 2008; Gabriel 2008; Bucher & Niemann 2012). In regards to the PowerPoint format, every time

a presentation is staged, the performance remains contingent on what is shown on the slide (Knoblauch 2008). The interaction that takes place *during* the presentation can be analyzed as situated action that hinges to a degree on what happens in and with the slide. This scope and focus delimits the analysis to a particular interaction that takes place between the presenter and the slide (Bucher & Niemann 2012).

The contents of the slide, such as photographs, sketches, diagrams, customer journeys or representations of prototypes, become prime resources in analyzing the contextual configuration of the presentation (Sarkkinen 2006; Hyysalo 2010). The contents of the slides become part of a semiotic field that can be analyzed within a developing performance, where both performance and the analysis of it can be *anchored* within the semiotic field that the slide provides (Goodwin 2000). Note that in addressing the interplay between verbal properties and visual properties, the ethnomethodological and conversation analytical approaches, as put forth in the close analysis of interactions (Heath 2000), look to be suitable in accounting for, as well as theoretically sensitizing, an understanding of what is going on *within* the design presentations.

That said, design studies that employ ethnomethodological and conversation analytical approaches tend to focus on the verbal properties of designing. Such studies account for the verbal production within set social contexts and theorize how verbal production, within such contexts, such as a meeting or a presentation, reproduce the design practice in general (Oak 2000). Insights gained through an ethnomethodological or conversation analytical approach would focus on how meaning and objects are produced as intersubjective phenomena within designing. This includes, for example, how designers ‘accommodate disagreement in design meetings’ (McDonnell 2012), ‘achieving membership in design meetings’ (Oak 2009), ‘managing face & dilemmas in design meetings’ (Oak 2012), ‘dealing with vagueness and misunderstanding in design meetings’ (Glock 2009; Karlgren & Ramberg 2012) or ‘acknowledging social rules in design workshops’ (Matthews 2009; Heinemann et al. 2012). In such studies, the criticality of the visual productions in designing is typically given a secondary role with regard to the findings made in the study of words. Such methodological downplaying of the visual properties in designing may be warranted by the complex role of language in designing and the many occasions in designing that proceed predominantly through talk (Fleming 1998; Lloyd & Deasley 1998; Stumpf & McDonnell 2002; Dong 2007; Glock 2009; Oak 2012; Oak 2013). Sometimes the constructive quality intrinsic to the use of words in design talk seems to be equated with the object of design itself (Medway & Clark 2003; Dong 2007). Words, and the way the discovery of new words provides a precedent to particular designs, are considered to be results of a design process (Goldschmidt & Sever 2011; S. Ylirisku 2013), especially under circumstances where no design to speak of has been created yet.

However, in the study of design presentations, one may typically expect a more or less finished object of design, or at least some kind of visual form, to be explicitly showcased at the time of presentation. The object of design may still involve ambiguities, which is one of the reasons why some form of a design presentation must be performed in the first place, but certainly to a lesser degree than in those occasions in designing that do not necessarily result in any direct visual production. That is, this study continues to focus on naturally occurring interactions that take place in the social context of designing, but the empirical scope calls for an explicit focus on both the verbal and visual properties of designing (Tomes et al. 1998; Bucciarelli 2002), as both are explicitly present in design presentations (Sarkkinen 2006; Hyysalo 2010; S. Ylirisku 2013; McDonnell & Lloyd 2014).

Moreover, this study is less interested in how the presentation takes place within the context of where, when and to whom the presentation is given, or how a design presentation becomes an occasion in which a particular design discourse is perpetuated. Rather, this study is interested in the staged interactions that take place during the presentation between the presenter and the object (Goodwin 2000), and how the object is achieved through the *interplay* of words and things (Knoblauch 2008). Moreover, this study is interested in how the differences in kind of objects of design within the fields of interaction and service design influence this interplay.

The minimal interaction between the presenter and the audience allows me to focus the analysis on the continuous interaction that takes place between the presenter and what is shown in the slides. This interplay can be analyzed for a particular order that arises from the minute details and how these are organized and accomplished in a systematic and concerted fashion. Closely studying the conduct of such a design presentation renders certain aspects relevant, and thereby attributes a certain order and significance. In so doing, the determinants of the form and technique can be extracted; units of action and their interrelationships with one another in the sequence of their production can be understood; and, in particular, the wide range of features that make up the contextual configuration (Goodwin 2000), of which the use of words and things is the main focus of this study, can be investigated.

When slightly shifting one's position towards seeing a design presentation as a compilation of symbolic modalities, the presentation can also be analyzed as a complex form of communication, which in regards to its use of different sign systems is best characterized as multi-modal (Kress 2010; Kress & Leeuwen 2001; Bucher & Niemann 2012). The presentation can be analyzed as a performance in which speech and images are interrelated with technology and media. They represent a kind of knowing that is defined by the circularity of speaking and showing. Presenting can be analyzed as a performance of knowing, where pointing, moving, indicating, suggesting, at once, produce the 'surplus' of meaning that allows one to understand what is going on (Knoblauch 2008).

Although the slide represents a simultaneous static view of various objects, the performance turns the static elements into a dynamic process. What appears on the slide is thus turned into a temporal sequence that is characterized by speech and bodily movement. This allows the presenter to create meaning that is not represented solely in the slide (simultaneity) or in the spoken text (sequential), but in their interplay (performed) (Baxandall 1985; Fleming 1997; Fleming 1998; Knoblauch 2008). For instance, designers make use of speech, bodily movement and rich visualizations of objects to highlight particular properties or functionalities of a specific design (see e.g. Fleming 1998, Lucero 2009). This dynamic in the interplay becomes particularly crucial in moments where mere words tend to fall short in explaining the complexities of how a design is supposed to work. Prototypes, design scenarios, service blueprints, stakeholder diagrams, metaphoric renderings and mood boards are just a few examples of well-known visualization techniques associated with design presentations that form prime objects for study.

Such concepts of interaction analysis and symbolic modality are particularly useful in establishing the scope and focus of this study. In addition, locating the object of design itself is central to considering this interplay. Within the scope and focus of this study, the object of design itself can function as a prime modality or resource that supports the analysis of the interplay that takes place. As a prime resource, the object of design can be analyzed as an embodiment of a 'surplus of meaning' (Knoblauch 2008). It can be analyzed as the main organizational element that bears on the interplay that takes place and provides a basis for a sequence through which the object of design is rendered as a meaningful thing within the developing performance. Indeed, one may expect to reach a point where the boundaries between performance and the object of design become difficult to track. The work that is required in explaining what the design consists of, or *does*, becomes achieved in an interplay through which the design becomes performed. One may expect a confusion of the object of design and the object of design-in-use, where the latter can only be conveyed through some form of performance with the design (Glock 2003). In this regard, the object of design could be understood to pertain to a particular 'knowing' to which the presenter responds 'knowledgably' in 'knowing how' to present it competently. Knowing how to see, knowing how to speak and knowing how to do are therefore observable and reportable competences that can be considered

when describing and interpreting communicative practices taking place in this particular context of design presentations (Glock 2003; Gherardi 2012).

2.3 *Understanding rhetoric in design presentation*

Prior study on rhetoric in design, as in utilizing both aspects of language and visualizations in design argumentation, has affected the way I analyzed design presentations. It helped me in accounting for the object of design in design presentation on rhetorical grounds and guided me in the development of some of the key concepts in storied design. Therefore, the topic deserves a closer discussion here. In this section, I will cover a number of proponents of rhetoric in design research and give their respective definitions of rhetoric in design. In doing so, I advance my own approach to rhetoric in design and give my definition of rhetoric with regard to design presentation at the end of this section.

In many cases, when it comes to the communication of a design, the one thing a design presentation should do is to persuade. A striking aspect of the rhetorical play that takes place within a design presentation is that it is centred on the *demonstration* of the design itself (Bazerman 1999; Foss 2009). In this context, the design can be considered, to some degree, as an independent entity that is able to ‘speak’ for itself in various ways at different times of engagement (Fleming 1998; Latour (writing as Johnson) 1988; Hyysalo 2010). As Fleming puts it:

‘The materiality of the design, in other words, becomes one proof of its goodness. Regardless of what it actually looks like or can do, a design that has a material status apart from the words used to describe it has already achieved a certain persuasiveness.’

(FLEMING 1997, P. 76)

What this assumes is the nature of rhetoric as addressed to an audience for a particular purpose (Burke 1969). The design presentation can be understood as a performative stance, in the sense that, whether one speaks of words, a rough sketch or a full-scale three-dimensional prototype, such artefacts represent and answer to the need for concrete representations of a design that are essentially produced with an external audience in mind (Fleming 1997, 1998). Such artefacts help the external audience envision what a design is like or should be like (Stevens 2013). During these presentations, the design is not just demonstrated, but is performed, rationalized and associated with merit in what it does in regards to a target audience. Furthermore, in identifying what it does, the presenter sets out to persuade the audience using words, actions and things (Buchanan 1985).

2.3.1 *Argumentation in design presentation*

An exemplar theme is the role of argumentation when designing (Stumpf & McDonnell 2002; McDonnell 2009; Luck 2009; Oak 2012). Interestingly, these studies are explicitly framed within an ethnomethodological approach, but discuss topics relevant for rhetoric. Typical of such studies is a focus on how language and argumentation are used in design meetings to ‘appeal to and advocate for’ a particular design (McDonnell 2009; Oak 2012), to ‘identify, persuade and negotiate’ a particular design (Stumpf & McDonnell 2002; Luck 2009) or to perpetuate ‘design discourse’ (Oak 2000).

Three articles written consecutively by Fleming (1996, 1997, 1998) deserve more attention in this section as longer illustrations, because they are strictly rhetorical and study designing as argumentation. Fleming is most interested in language as the feature of construction in design. (Fleming 1998, p.42) In this, Fleming defines rhetoric in design as the use of language, "where language functions to suggest, establish, modify, and regulate material objects" (Fleming 1998, p.45). Although Fleming accommodates

the material object in his study of rhetoric in design, in his understanding of rhetoric, argument is limited to language use (Fleming 1996). These three articles stand out, in terms of methodology, for their explicit refusal to account for any visual material aspects that one may assume to have been present in the empirical material used. Such explicit exclusion allows me to draw out the possible bearing such visual materials may have had on the argumentation in question. Furthermore, these three articles are also relevant in topic, because they concern the study of student design presentations (e.g. design crits).

Fleming puts forth the following question: 'Can pictures be arguments?' (Fleming 1996).

'Clearly, a drawing or photograph independent of words can influence the thought and action of others; but can it, I wonder, argue?'

(FLEMING 1996, P. 11)

Fleming is concerned with language use in design and the rhetorical functions in its use. For Fleming, language is important because it is the one indicator that allows him to account for reason and argument from a strict rhetorical perspective that concerns itself only with the 'discursive means' of obtaining the adherence of minds (Perelman & Olbrechts-Tyteca 1969). In this regard, Fleming is interested in pictures specifically because they are not part of a formal language. Therefore, since arguments are concepts that seem to belong to the realm of formal language, the picture puzzles him.

For Fleming, the logical thing to do next is to compare the conceptual characteristics of an argument with that of a picture. He puts forward two prototypical traditional characteristics of argument for comparison. First,

'An argument ... involves a two-part relation, one part (evidence, data, proof, support, reason, etc.) supporting the other (position, claim, assertion, conclusion, thesis, point, argument, proposition, etc.)'

(FLEMING 1996, P. 13)

And second,

'An argument exists ... in a specifiable context of debate, controversy, opposition, or doubt; its position is thus necessarily contestable.'

(FLEMING 1996, P. 13)

In regards to the first, he states that, at the outset, pictures lack this internal differentiation. It is difficult to reliably distinguish in a picture what its claim is and what the proof of that claim is. Furthermore, in regards to the second, pictures are difficult to refute, oppose or negate. A picture can be opposed only by introducing words into the situation, thereby effectively translating the picture into formal language. Indeed, ultimately, the ability to say 'no' is privileged to formal language and formal language alone.¹ Hence, Fleming logically deduces that pictures cannot be arguments.

He elaborates that a picture's inability to be an argument is due to the prototypical characteristic of a picture (as modality) for it 'typically functions as a simultaneous whole rather than a sequence of bits' (Fleming 1996, 14). And since a viewer typically takes in a picture all at once, it is difficult to establish a proper sequence, which is a prototypical characteristic in formulating an argument.

'Without syntactic arrangement, then, the visual can present or express ideas, but cannot state them, an act which requires a more restricted structure.'

(FLEMING 1996, P. 14, EMPHASIS IN ORIGINAL)

As far as Fleming's rhetoric is concerned, there is always a better choice, depending from which perspective one is looking. One's only limitation lies in the fact that one

¹This is also a quality that Burke points out to be 'a peculiar linguistic resource'.

cannot consider everything at once – hence, the need to verbalize it, the need for rhetoric, for argument. For this reason, Fleming believes that visual artefacts are not capable of serving as assertive statements. A picture on its own is too subtle to act as an assertion. Without formal language, it is difficult, or even impossible by Fleming’s standards, to say what the topic is, let alone know what the statement is.² In fact, he adds, this could be considered a picture’s greatest power, as it involves nuances and suggestion, rather than making a singular statement.

Although he suggests that an image is too subtle to allow a singular position to be asserted, he also points out that an image is not subtle enough, in his view, to be considered as a flat singular thing without depth. However, in actuality, images often come with depth, and it is questionable whether a viewer takes in a picture ‘all at once’.³ That is, *looking* at pictures could be argued to follow some form of linearity (Baxandall 1985). So, one can start to get a sense that a broader capacity of pictures, one considered crucial to design, does not seem to be included within the scope of his argument. Fleming concludes:

‘So, if the visual cannot function as both claim and support (unless we make the distinction between them meaningless), and if it cannot, without language, be a claim, we are left with only one possibility: the visual can serve as support for a linguistic claim. This is not, it should be said, a minor role. In photography, for example, the picture can still carry the brunt of the communicative function, but its meaning is now argumentatively “anchored” by the verbal caption.’

(FLEMING 1996, P. 19)

This reveals Fleming’s stark positioning in regards to how he understands meaning and how meaning is attributed in general. However, in his positioning, he seems to equate argument with language. Indeed, when scrutinizing the structure he proposes, which is consistent with the prototypical characteristics of ‘the sequence’ and ‘the no-value’, one is not only looking at a reduction of argument, but also to a reduction of language in general. It seems that, for him, organization of meaning proceeds through a process that is thoroughly linguistic, or at least this is his preferred mode of perception and a mode that he intends to hold on to, no matter at what cost (Fleming 1997, 1998). In reaction to Fleming’s question one may ask: ‘Do arguments consist only of words?’ Indeed, if this were the case then much of human sociality would have arguably taken a rather different nature it has.

For present study, it suffices to note that Fleming’s deduction runs contrary to what is typically seen and understood to take place in designing, and particularly in design presentations, where one may find extensive use of sketches and graphic representations as well as text in conveying a particular design. Other than text, sketches and graphic representations are important means in how designers argue, and for good reason. Arguments may well be conceived using both words and things (e.g. Schön 1983, p. 81). Fleming himself also notes this.

‘In such cases, the linguistic claim is supported by non-linguistic evidence which instantiates, illustrates, confirms, even proves it. This kind of evidence cannot be translated into language because the whole point of the evidence is its non-linguisticity, its closeness to the way the material world looks, or will look.’

(FLEMING 1996, P. 20, EMPHASIS IN ORIGINAL)

In spite of this, he concludes in the following fashion:

‘If what we mean by “argument” is the act of advancing reasonable positions in the context of doubt and difference, then a picture cannot, independent of language, be an argument.’

(FLEMING 1996, P. 20)

② Buchanan proposed that a picture, or a material artefact, is assertoric rhetoric, like one half of an argument, the half of being a statement. Even this is problematic for Fleming, because this only formulates the question differently: Can a picture, then, state anything? And if so, what would it state?

③ This play of depth in images seems to allow for a formulation of the image that goes beyond language alone.

The key to understanding his conclusion lies in his use of the term ‘context’ and ‘independent’. In a concrete situation, arguments never emerge out of a vacuum – after all, words produced in a vacuum are as meaningless as pictures or images created in such circumstances. However, there is no such thing as a hypothetical argument, just as there is no such thing as a hypothetical design presentation. In actuality, within designing, the argument always concerns a specific object of design with specific properties that cannot be reduced to words only, but which reflect an ultimately material reality that is bound to be specific and contextual. So, although the word ‘no’ rightly belongs to a formal language, the act of saying no – or more appropriate in terms of design, *doing* no – within a set context may only be produced with the image of an opposite ‘in mind’.⁴

Fleming’s decision to limit himself to formal language points at a positioning that might just be too narrow for the study of design presentations and how pictures are able to function and *afford* in terms of rhetorical capability. Language alone may not be able to properly establish and pinpoint the object of design, as the object of design itself would complement it. Fleming struggles with this in his work (Fleming 1997, 1998), and thus the picture continues to puzzle him.

2.3.2 Rhetorical figures in design presentation

Kinross (1985) provocatively turns the tables by asking the question, ‘What is not rhetorical about design?’ Nothing is free of rhetoric, including design (Bonsiepe 1965; Ehses 1984; Buchanan 1985; Kinross 1985; Buchanan 2001a). As soon as the move from the conceptual to a visible manifestation is made, the means used become rhetorical – *they instruct, direct and persuade action*, whether this is the most ostentatious addition set to ‘please’ or more blatant advertisements.⁵ As Bonsiepe puts it:

“Pure” information exists for the designer only in arid abstraction. As soon as he begins to give it concrete shape, the process of rhetorical infiltration begins.

(BONSIEPE 1965, p. 38)

In the context of a design presentation, the presence of an object of design allows the presenter to not only demonstrate particular details of the object, but, in so doing, also instruct a way of seeing and interpreting the object through what is demonstrated. The inclusion of a thing can be considered ‘an artful departure from the ordinary and simple method of speaking’ (Ehses 1984, p. 55). It represents both an invitation to understand the object of design and an effort to persuade an external audience of the internal goodness of its design (Fleming 1997). In this case, persuasion comes through an argument marked by both a thing and words, as the argument ‘comes to life’ through the thing performed (Buchanan 1985).

A key aspect in this marriage of design and rhetoric is the relationship between the semiotic figure and its rhetorical capability – that is, the capacity of the visual properties of a design to have a bearing on its rhetorical characteristics of signification (Bonsiepe 1965, Ehses 1984) – or what I seek to further define as the rhetorical figure throughout this section. As soon as one presumes that the object of design is a rhetorical figure, three primary dimensions open up for analysis in terms of rhetorical function: 1) someone made it, 2) it becomes symbolic and 3) it has a purpose for communication (Foss 2009, p. 4). In that respect, the object of design, as a rhetorical figure, pertains to a symbol, or a ‘bricolage’ of symbols (Louridas 1999), that inevitably results in seeing the world in one way rather than the other (Buchanan 1985, p. 7). How does this happen?

In regards to the design of advertisement posters, Bonsiepe identifies a number of rhetorical functions in the use of rhetorical figures in design. The functions he identifies are inspired by the linguistic forms of rhetoric, such as simile, metaphor and analogy, but he extends these functions into the graphic realm to provide a crude visual/verbal syntax

④Although Fleming may be right in attributing the technical capacity of negation to the realm of formal language, in the case of design work the ability to say ‘no’ is beside the point. Indeed, when engaged in design work, doing ‘no’ is part and parcel of the business, because the ‘new’ design is intended to replace the ‘old’. The endeavour has ‘no’ written all over it.

⑤This is one of the most elusive aspects of rhetorical studies, the idea that rhetoric by itself does not exist, but only exists as a function and by the grace of the means that bring it to fruition.

in how such graphic productions can potentially be interpreted and evaluated based on linguistic rhetorical forms. The kind of rhetorical figure in design that Bonsiepe defines is one that exists by the grace of linguistic rhetorical form and may pose some limitations to the study of design presentations. Bonsiepe's approach to the rhetorical functions of design may work well when the object of design is an advertisement poster. In advertisement posters, the representation gains rhetorical force in relation to words, such as company names, the title of a film or play, and taglines. These elements might look different, however, in a design presentation, where the object of design has the capability to stand for itself and its specific use. The object of design may be represented through references to other images or objects, but likely not in the way Bonsiepe describes.

Ehses continues this linguistic direction of the rhetorical figure by studying the design of *Macbeth* posters, but extends the function of the rhetorical figure into a mode of production with the following question:

'How is meaning created visually in design? What is the routing that leads from the text of a play (or any other statement) to a concept and its visualization in a poster (or a book cover or trademark)? What is the nature of the relationship between the figurative image and the text?'

(EHSES 1984, p. 53)

What this question leads to is the kind of function for the rhetorical figure that finds its beginnings in the process of designing itself, which 'implies reference to pre-existing cultural knowledge that pre-dates a design' (Ehses 1984, p. 58), or what he defines as a 'process of signification ... the coding dimension that precedes all message transfer and communicative interaction' (Ehses 1984 p. 53).

Ehses' definition of rhetoric in design lies in *how* the object of design, as a rhetorical figure, comes to instruct: "the effectiveness of a rhetorical figure always depends on the audience's ability to perceive the difference between the substitute and the substituted way of expression" (Ehses 1984, p.57). What this means for the object of design, if it is to function as a rhetorical figure, is that there is a subtle balance to be made in designing between 'the obvious and the new' (Ehses 1984, p. 58) – or plainly put, the object of design should be different, but not to the extent that it becomes unrecognizable. The designer is not so free in his/her choice of means (Louridas 1999), because the means of the rhetorical figure are rhetorically acted upon only in so far as both author and audience are able to judge so – and hence, the function of the rhetorical figure in a 'visual style' is born (Selle 1984).

A key aspect of rhetoric is 'choice' (Ehses 1984, p. 54). Choice, he says, 'is a key term in rhetoric as well as design, as both pertain to making appropriate selections of means to achieve a desired end' (Ehses 1984, p. 54), hence one can note the rhetorical function in all human endeavour, including design. What this means in practice is freedom in the use of 'rhetorical figures' (Ehses p. 55, but also see Bonsiepe and Kinross) as stylistic devices. Ehses goes so far as to say that any rhetoric cannot stand out without a specific style, and quotes Stendhal: 'Style is this: to add to a given thought all the circumstances fitted to produce the whole effect that the thought is intended to produce' (Ehses 1984, p. 56). When following through on Ehses' definition of rhetoric in practice, this means that the creation of rhetorical figures all serve symbolic and communicative functions (a visual style) – and hence, the activity of 'styling' comes to bear (Person & Snelders 2009).

Following this line of thought, Kinross (1985) makes a good case for style and the rhetorical figure in design, with regards to the study of train timetable designs. Although timetables are generally considered to be 'purely' functional and supposedly 'style-free' due to their strict and dry context, Kinross concludes that even such timetables are rhetorical because of their use of dot leaders and colour. The timetable exemplifies his definition of a rhetorical figure as 'a framework for eloquent articulation ... a set of rules for making information eloquent and more easily understandable' (Kinross 1985, p. 375-376).⁶ Like Ehses, Kinross' definition of rhetoric in design lies how the object

● It becomes apparent in Kinross' essay that the example of timetables was specifically chosen in reaction to Bonsiepe's exemplifying of timetables as 'the only examples of simple, dehydrated information, innocent of all taint of rhetoric' (Bonsiepe 1965, p. 38). Kinross' point is that even in the 'dehydrated' context in which timetables dwell, rhetoric prevails.

of design, as a rhetorical figure, comes to be instructive. Kinross further defines the rhetorical figure in term of a mode of production by saying that a timetable is part of an 'art of directed communication – directed, that is, both internally to organize the material communication and externally to persuade an audience' (Kinross 1985, p. 376). The timetable, as a rhetorical figure, constitutes an 'interlarding' (Bonsiepe 1965) of the information carried in the object of design and its cultural reference to the time of an era (Kinross 1985, p. 377). Hence, Kinross examines how the timetable is presented in a particular visual style of an era.

For Kinross, the key to understanding rhetoric in design is that the object of design, or a particular compilation of styles, becomes rhetorical upon its use within a specific historical-social-cultural spectrum.⁷ Kinross' approach to the rhetorical figure differs from Bonsiepe's in that Kinross' method of examining the rhetorical figure does not start from a linguistic rhetorical form, such as a simile, metaphor or analogy. Rather, with Kinross, the perceived compilation of visual style constitutes the means to a rhetorical figure in design. This is significant for present study, because it signifies an important emancipation of Kinross' definition of rhetoric in design from linguistic rhetorical form. For Kinross 'a visual style of an era' is most authoritative in teaching one the rhetoric of design within a specific historical-social-cultural spectrum.

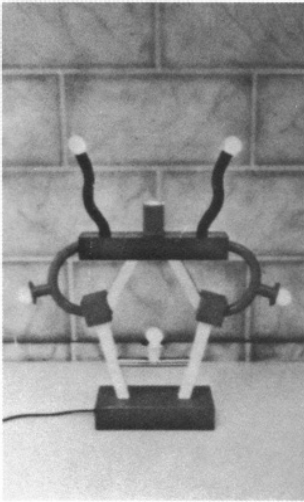
Overall, what Bonsiepe, Ehses and Kinross describe as rhetorical processes in design are very different from Fleming's description. This may not come as a surprise, since Fleming's observations stem from processes of design that take place in-situ, where the object of design is still largely under development (deliberative), whereas Bonsiepe's, Ehses' and Kinross' observations largely stem from a historical account of ready-made objects of design (epideictic). Whereas Fleming seriously takes into account what designers say, Bonsiepe, Ehses and Kinross examine the final outcome of designing. They all make points that are relevant to the study of design presentations. It is evident that a presentation aims to persuade the audience about a particular design and that this is done via some form of process of signification, where both words and visual form become 'interlarded' (Bonsiepe 1965).

For instance, this process of signification is perhaps most clearly articulated in Buchanan's article 'Declaration by Design' (1985). Buchanan extends this function of visual style to three-dimensional products, or in broader terms, to technology in general (Summerson 1963; Winner 1985; Bazerman 1999).⁸ The twist in Buchanan's argument is that, unlike words, an object of design primarily asserts its own existence, and through that existence, the historic-cultural spectrum that forms an integral part of its being. In regards to its rhetorical status, he defines it with the analogy with that of fine arts, where 'its nature is contingent upon recognition by the current communion of the knowing. Art does not exist. It declares itself'⁹ (Buchanan 1985, p. 20 on quote from Rosenberg). To illustrate his point, he describes the design of the Ashoka table lamp by Ettore Sottsass.

⑦Bazerman (1999), in a study of 'The languages of Edison's light', gives a compelling account of the importance of the historical-social-cultural spectrum in the study of rhetoric in technology and design, and how the rhetoric of technology extends beyond the realm of words into symbols, materials, economics, political rivalry, legal supremacy, social-cultural characteristics of habitual living, etc.

⑧For a similar exposition of rhetorical function in classical architecture, see (Summerson 1963), especially Chapter 4, 'The rhetoric of the Baroque'. At the same time, Buchanan's concept of identification in the rhetoric of things is not to be confused with the agency of things. Agency, as in Actor-Network-Theory, in regards to things, may actually be incongruent with such a concept of identification. Human identifications, 'human purpose', anthropomorphisms, are considered obstacles in studying the agency of things.

⑨At this point Buchanan poses the question of 'whether design is a modern form of rhetoric – or whether rhetoric is an ancient form of design' (Buchanan 1985, p. 191). Interestingly, this leads him back to an interlarding with linguistic rhetorical form – a method that Kinross so painstakingly tried to emancipate himself from – by employing three propositions an object or thing can occupy: technological reasoning (logos), character (ethos) and emotion (pathos), all of which provide the substance and form of design communication, where he attempts to connect rhetorical concepts with product semantics.



'For example, the Memphis table lamp, Ashoka, by Ettore Sottsass, not only directly displays the balance of forces used in supporting the light bulbs, a playful balance that is an important part of the design logos, but also metaphorically suggests the flow of electric current. The ostentatious display of technological reasoning (or of pseudoreasoning, as in the case of functionless elements that are associated with machinery, such as basic geometric forms, pipes, struts, and so forth) is a significant feature of many postmodern products ... Such ostentation, however, is not simply a decoration; it is part of the logos. An audience is invited to consider the mechanical aspect of our world when they use such a product ... the audience is encouraged to participate actively in the argument of the design, to recognize and think about mechanical and geometric relations, rather than ignore them or take them for granted.'

(BUCHANAN 1985, P. 13)

In this regard, Buchanan seems to be stretching the notion of the declaring act to include visual form. The object of design's *demonstrative rhetoric* declares itself 'fit for use' – that is, fit for use within a particular style of an era.¹⁰ Paradoxically, in *the act of declaring* (presenting the object of design), it is Buchanan's description, not the physical object per se, that declares the object as 'fit for use'. As Baxandall (1985, p. 1) points out: 'We do not explain pictures: we explain remarks about pictures – or rather, we explain pictures only in so far as we have considered them under some verbal description or specification.'

In this respect, Buchanan's description contributes to an explanation. Although one may note interplay between description and explanation, this should not detract one from the fact that description is the mediating object of explanation. In the description of the Ashoka lamp, it is Buchanan who partly deals with the object of design as a rhetorical figure (through his article) by explaining to a particular audience the physical object's underlying idea as a descriptive object: 'In essence, it provides the thought or idea that is the soul of production' (Buchanan 1985, p. 21). In this, Buchanan does not seem to spare words in explaining to the audience how to 'use' it. Furthermore, he is quite specific regarding what one should be looking at, exactly, in the use of it. Following Kinross' line of thought, the exposition of both a physical object and a description found in Buchanan's article epitomizes this process of signification that is directed both internally and externally: internally to designate a particular 'soul of production' for the physical object, externally to explain its 'fit for use' to a particular audience.

Furthermore, following Foss' three dimensions for analysis, one can note the following. First, it is Buchanan's description itself that *does* part of the rhetorical work

¹⁰ However, he notes that this demonstrative rhetoric has the capability to be usurped into the broader range of a given social context, where verbal rhetoric 'has full force in determining the implementation of the product.' (Buchanan 1985, p. 21)

in appealing to a specific community, of which he himself can be considered part. Paradoxically, it is Buchanan's own description that becomes the descriptive rhetorical counterpart to the object of design. The object of design he chose to describe pertains to an area of knowing that Buchanan is well versed in thanks to his background. In regards to the object of design, his description attests to a level of expertise and proficiency that enables him to account for the object of design in rhetorical terms.

Second, this exposition exemplifies a demonstrative rhetoric where one can recognize a rhetorical process in regards to an object of design that is symbolic and grounded in both words and a concrete design, in both a description of the object and the object in question (Baxandall 1985). The result is a constructed total exposition using both material and verbal means, created (or should I say co-constituted, interlarded or *co-declared*) by Buchanan. In this sense, words are per definition ambiguous, and are best considered within their context of use, especially when in reference to a particular object of design (Baxandall 1985, p. 7).

Third, in explaining what he sees, he can do no more than to appeal to a specific audience with a particular flair and identification that are grounded in a concrete design – that is, *we* understand *him* in communication. To provide such an exposition is an art form in itself (Foss 2009). It draws from a historical-social-cultural spectrum and from how the individual stands within that spectrum. This disposition is ultimately reflected in Buchanan's process of signification that pertains to both a *grounded* physical means and its *storied* counterpart.

Whereas in the former section, Fleming's definition of rhetoric in design sensitized this study of design presentation in terms of how designers argue about an object of design through language, the construed definition of the rhetorical figure as put forth in the latter section, sensitized the study of argumentation and the possible rhetorical functions the object of design can have within that. In developing my own approach to the study of design presentation, I define 'rhetoric' in design broadly construed as instruction with regards to a specific object of design. I further define 'rhetorical' in terms of a process of signification, where the performance of a design presentation is synonymous to such a process and instructs a specific audience through the use of language and visual rhetorical figures. In this regard, I define 'argumentation' as rhetorical, where 'an argument' utilizes language and visual rhetorical figures to instruct a specific audience with regards to a specific object of design. As exemplified in Buchanan's account of the Ashoka lamp, an argument consists of a disposition, where both *grounded* physical means and its *storied* counterpart become indicators to what the presenter knows. The implications of rhetoric to my grounded theorizing of storied design will be further explicated in chapter 4. However, it is important to note that in the theoretical development of storied design, as will be explained in chapter 4 as well, the concept of the rhetorical figure no longer came to hold a central place.

2.4 *Seeing the design presentation as a narrative account*

From the outset, there is an obvious role for narratives in design, as seen within the widespread use of design scenarios and/or customer journeys (e.g. Löwgren & Stolterman 2004; Morelli 2007). As Löwgren & Stolterman put it:

'One of the most fascinating aspects of a digital artifact is that it must be understood aesthetically as an experience over time. When you use a digital artifact, you do things, the artifact responds, you act back, and so on. It is an unfolding story.'

(LÖWGREN & STOLTERMAN 2004, P. 53)

In such methods, narrative techniques play an important role in the development of interaction and service designs. In this regard, narrative techniques can also be observed to have played an important role as heuristic devices in the design process (Cockburn

2000; Gruen et al. 2002; Pentland & Feldman 2007). Narrative techniques help in achieving veracity beyond the functional aspects of the design and establishing empathic response to stories within design (Parrish 2006; Spaulding & Faste 2013).

Other than narrative-inspired methods, design presentations themselves can be considered as narrative accounts that are particularly constructed in relation to an object of design (Oak 2006). Design presentations address a prior story in relation to the object of design as experienced (McDonnell et al. 2004), which is then accounted for within a dramatized version of it (Lloyd 2002). This dramatized version, in turn, becomes part and parcel of the object of design and how one is to understand the object of design within the presentation (Fleming 1997). That is, within the context of a design presentation, the object of design holds an important bearing on how the narrative account is structured.

For instance, Buchanan's description of the Ashoka lamp, other than pointing to a particular rhetorical process, can also be considered as a narrative account that points to a narrative structure that seems inherent to that rhetorical process. This narrative structure is organized in two parts: the content of the story and the plot in which the story is organized, where the plot pertains to a cause-and-effect that drives the contents of the story. The content of the story would pertain to what Buchanan writes in, for instance:

'the Memphis table lamp, Ashoka, by Ettore Sottsass, not only directly displays the balance of forces used in supporting the light bulbs, a playful balance that is an important part of the design logos, but also metaphorically suggests the flow of electric current.'

(BUCHANAN 1985, P. 13)

In identifying this story, however, the story by itself seems to fall short if not accompanied by the actual photograph that grounds the story in the physical characteristics of the Memphis lamp. This shortcoming becomes particular apparent when considering the plot, where the cause seems to be found in the actual geometry of the lamp that 'displays the balance of forces'; and the effect in what Buchanan tells about it, where this geometry 'suggests the flow of electric current'. The importance of the photograph becomes more apparent in the following sentence, where the story is explicitly inserted with descriptions of the physical characteristics of the Memphis lamp:

'The ostentatious display of technological reasoning (or of pseudoreasoning, as in the case of functionless elements that are associated with machinery, such as basic geometric forms, pipes, struts, and so forth) is a significant feature of many postmodern products.'

(BUCHANAN 1985, P. 13)

This example illustrates to some degree how the object of design can be analyzed within a narrative account in the context of a design presentation that consists of both language and visual material. What this suggests is that this narrative structure can be analyzed for how it organizes and gives meaning by putting a visual form in relation to a particular story as explanation.

Seeing a design presentation as a narrative construction, then, opens up three key elements for analysis that have a bearing on the object of design: 1) the story, the sequence of events, systematically related; 2) the particular medium in which the story is manifested; and 3) the telling, the action, the act of narrating, the communication process that produces the story in a medium. (Turner & Bruner 1986).

Narrative analysis of a design presentation can focus on the sequence of scenes or stories that take place in the presentation. Like any narrative, the design presentation has a clear beginning, middle and ending. This basic principle may create the illusion of sequence and order, the appearance of causality and the look of necessity (Kermode 2000) to explain the object of design: 'Events are selected and then given cohesion, meaning and direction; they are made to flow and are given a sense of linearity and even inevitability' (Sandelowski 1991 p. 163). Stories in design presentations are not arbitrarily placed. They are placed as a

means to an end where the end pertains to the object of design. In this regard, there is a circularity of the narrative conditions in which the design presentation takes place. At the time of presentation, the object of design is typically more or less finalized. In turn, the value of the object affects how the presentation is to be given. With the availability of a more or less determined object of design, there is a clear beginning and an ending, as much as there seems to be a 'sense of an ending' (Kermode 2000) from the beginning. Indeed, in paraphrasing Kermode (2000) at this point of designing, the object is no longer imminent; it is immanent. This principle in narrative structure is typical of design presentations, and guided my study of narrative construction in design presentations.

Narrative analysis of a design presentation can focus on the different devices an individual uses to make meaning in these scenes or stories. This is, in part, much of what this chapter was dedicated to examining. That is, establishing a design-specific discourse as a medium that pertains to both verbal and visual properties, each having a bearing on the object of design. A particular focus can also be placed on the type of stories that are employed in, and which constrain, the narrative construction of the design presentation. Narrative construction is constrained by the narrative storylines available to communicate them (Sandolowski 1991, p. 163). For instance, a dominant device for narrative construction in design can be found in the problem-solution motif (Lloyd 2002). Other devices may be found in types of stories that are (re)produced more often than others, such as a briefing process or ideation process. Further devices may be found in specialized design methods, such as interactive prototyping (Isbister et al. 2007; Kurvinen et al. 2008; Ståhl et al. 2009; Lucero et al. 2009), film and video (Newell et al. 2006; S. P. Ylirisku & Buur 2007; Newell et al. 2011), storyboarding and design-oriented scenario building (Newman & Landay 2000; Morelli 2007; Myers et al. 2008), context mapping (Visser et al. 2005), or drama and storytelling (Mehto et al. 2006; Dindler & Iversen 2007; Brodersen et al. 2008; Buur & Larsen 2010; Liao & Person 2012; Liao 2013; Liao & Person 2015). Such design methods provide means of storytelling as much as they provide a specific method of representation that visualizes the story being told. Yet, it is important to note that the social construction of such means falls outside the scope of this study. Rather, such means sensitized the study of what happens during the design presentation and helped with where to look for when identifying the functions of such means in locating the object of design.

Narrative analysis of a design presentation can focus on the telling itself. The design presentation represents a narrative account of the 'design-as-told'. It is a representation of the object of design at a given moment, rather than the object of design itself. In this regard, the design presentations within the scope and focus of this study can be considered as addressing a particular experience that is explicitly reproduced in 'a narrative that is rolled out in a virtually uninterrupted monologue form' (Polkinghorne 1988, p. 160). Moreover, such design presentations do not simply represent, but rather (re)construct the object of design in every act of the telling, for the outcome of any one telling is necessarily a retelling, where this (re)construction and retelling relies on repeated interplay between the things that are shown and explanations of those things.

These three elements seem to be particularly useful when analyzing design presentations, as they limit the methodological possibilities within this study. As each design presentation set forth within the scope and focus of this study represents a constructed singular narrative, the analytic strategy must keep this narrative structure intact. (Sandelowski 1991) Analytic relevance must follow narrative relevance. This means that any form of analysis that tends to fracture the empirical observations, such as content analysis, sampling or constant comparison, needs to take narrative relevance into account. That is, the narrative organization in the design presentation demands a careful disintegration of empirical material that keeps intact the narrative structure of story, medium and telling in the actual sequencing of events.

In summary, I briefly located the study of design presentations amongst a wider field of design study. I broadly indicated the empirical scope of this study by demarcating the object of design and distinguishing its particularities in the context of design

presentation. I then earmarked a number of approaches that are useful in further establishing the scope and focus in the study of design presentations. Each of these approaches, however, has a number of limitations that need to be addressed here.

The ethnomethodological and conversation analytical approaches, as instantiated in the interaction analysis, come close to what I intend to do. However, interaction analysis typically examines units as small as a few seconds, up to a few minutes at most. The unit of analysis in this study is by necessity much longer than a few minutes, typically spanning 20 to 30 minutes to retain its integrity. To embark on an interaction analysis of a series of complete design presentations is a daunting task, and not necessary to understand the conduct I am interested in, to the level I want to answer to.

Linguistic and rhetoric critical approaches allow me to focus on the rhetorical elements found in both the language and visuals used, and how they are configured in a design presentation. However, in accommodating both language and visuals within a rhetorical approach remains a challenge in design research. None of the rhetorical approaches discussed above can be readily adopted for my purposes. The strictly rhetorical strand focuses predominantly on what designers say, but less so on the visual properties of the design (Fleming 1997; Fleming 1998), whereas the more contemporary strand focuses predominantly on the visual properties of the design, and less so on what designers say or do/did (Ehres 1984; Buchanan 1985; Kinross 1985). Since both are relevant to understanding a design presentation, I am left with the option to integrate both into my own approach.

The narrative analytic approach is useful in conceptualizing the narrative structure in the design presentation and how it is organized with regards to the object of design. This approach allows me to study the means of storytelling and how the means become performed in the telling during design presentation. Yet, the scope of narrative analysis tends to span beyond the occasional telling to a discursive realm (Oak 2000; Lloyd 2002; Oak 2006) that falls outside the scope of this study. In terms of scope and focus, this study is limited to the staged interaction that takes place *during* the design presentation. I am predominantly interested in the verbal-visual means that are present in the linear production of a story or stories and how these means are configured in the staged narrative interplay that can be verbally-visually discerned *during* the design presentation. I am less interested in the narrative analysis of the kind of interaction that takes place between the presenter and the audience, or in how the story comes to figure within a larger narrative mesh of sociocultural production. The narrative analysis that I am interested in pertains predominantly to the object of design in question and how the object is contained within a narrative structure that is staged during the design presentation. In this regard, none of the approaches discussed above seem to provide a clear and ready-for-use repertoire to follow, which gave me a reason to develop my own approach.



3 Methodology and data

In this chapter, I set out to explicate an approach to the study of design presentations that are given publicly to a general audience. The overall research strategy is as follows. This research considers the staged interaction that takes place *during* a design presentation as its base unit of analysis. In approaching this complexity systematically, this research combines video analysis with a grounded theory approach. I sampled video recordings of public presentations that were given to a general public. I sampled public presentations of service designs given by MA-level design students and professional service designers. In contrast to the objects of design presented in these service design presentations, I sampled a public presentation of a product that consists of a discrete object.

In addition to the video recordings of the design presentations, fieldwork was conducted to support the study of the video recordings. However, it is important to state up front that the focus of analysis is predominantly limited to the study of the staged interactions that take place within the video recordings, and only occasionally extends to fieldwork observations when the empirical scope of the recording allows for it. In this chapter, I will account for the development of the empirical scope and its analytical focus. I will describe how I went about in analyzing the video recordings and clarify some of the central tenets of methodological reasoning in constructing the framework of storied design.

In approaching the complexity of the staged interaction that takes place *during* presentations, I make use of video as the principal data and video analysis as the principal method (Knoblauch 2008; Stark & Paravel 2008; Knoblauch & Schnettler 2012; Bucher & Niemann 2012). Making use of recorded video is particularly apt, because it allows unprecedented access into the minute and fine-grained detail of interactions taking place during design presentations. Video playback allows me to study the intricacies of how such interactions take place in different modalities, as they unfold frame-by-frame, and in a sequenced manner, during a design presentation. In this respect, the ethnomethodological and conversation analytical approaches, as instantiated in the interaction analysis and its rich tradition of employing audio and video material (J. Whalen et al. 2002; Heath & Hindmarsh 2002; Knoblauch et al. 2009; Heath et al. 2010; Fele 2012), provide an important resource.

However, as mentioned, to retain the integrity of the design presentation, the unit of analysis of this study is by necessity much longer than the typical length studied within an ethnomethodological or conversation analytical approach. To overcome this limit, I turn to a grounded theory approach (Glaser & Strauss 1967; Glaser 1978). However, as I shall explicate next, each of the repertoires discussed in chapter 2 are theoretically relevant to my own grounded theory process in terms of setting scope and focus. They sensitized me with readily identified concepts with which to advance my own categories within a grounded theory study, allowing me to develop a 'theoretical sensitivity' (Glaser 1978) from which my grounded theory process can beneficially start from and depart from.

In this regard, two studies (Schubert 2012; Fleming 1997; Fleming 1998) deserve further discussion for their methodological reasoning, because both have used grounded theory-informed procedures and video material as part of their empirical data. The combination of these two studies puts forward an opportunity for conveying some of the key interests and procedures in combining video analysis with a grounded theory approach, whilst providing me with a moment to reflect on and advance my own distinct combination of video analysis and the grounded theory approach as research strategy.

This chapter consists of five parts. The first part gives a brief background to the grounded theory approach. It also addresses the status of video as data in the grounded theory approach and my own process of grounded theorizing in relation to the different paradigms within the ongoing grounded theory debate. The second part introduces the basics of a grounded theory approach. This includes basic concepts and procedures

such as ‘theoretical sampling’, ‘constant comparison’ and ‘coding’. The third part explicates the combination of a grounded theory approach with video analysis by drawing on Schubert’s study (2012). In the fourth part, I use Fleming’s study (Fleming 1997; Fleming 1998) to explicate my own analytical focus in the study of the staged interactions that take place within design presentations. Using both Schubert’s and Fleming’s studies, I further discuss the more subtle procedures in the grounded theory approach for discovering theory that is difficult to discuss without an explicit example. The fifth part describes in detail the various procedures and strategies in how I deconstructed the video recordings of design presentations that I collected, and how I analyzed and came to construct a grounded theory of *storied design*.

3.1 Background of the grounded theory approach in brief

The grounded theory approach provides the researcher with a research strategy for the generation of theory that is grounded in systematic sampling and comparison of data. Although the approach was initially intended for the generation of social theory within the field of social sciences, its analytical procedures have been shown to be useful for the interpretation of data in general across different fields, including design (e.g. McDonnell 1997; Yair et al. 1999; Luck 2003; Le Dantec & Do 2009; Wong 2010; Broberg et al. 2011; Gerber & Carroll 2012; See also Friedman 2003; Goldkuhl 2004; Compton & Barret 2015).

Since its inception, there has been an ongoing polarizing debate on what exactly constitutes a grounded theory approach. This division can be personified in the two authors of *The Discovery of Grounded Theory* (Glaser & Strauss 1967). One of the most prominent categorizations of this division is the opposition between ‘constructivist grounded theory’ and ‘objectivist grounded theory’ (Charmaz 2000), although it has also been proposed that there is an opposition between ‘traditional grounded theory’ and ‘evolved grounded theory’ (Mills et al. 2006). The Straussian way is often categorized as constructivist and the Glaserian way as objectivist, although this is not the terminology that Glaser himself would have suggested (Glaser 2002). Since the later writings of both Strauss (1987) and Glaser (1978) seem to differ somewhat from what was initially stipulated in *The Discovery of Grounded Theory* (1967), both can be considered as ‘evolved grounded theory’, although the general opinion leans towards seeing the Glaserian way as ‘traditional grounded theory’ or ‘classic grounded theory’, because it seems closer to the original message propounded in *The Discovery of Grounded Theory* (Simmons 2011). The differences between the strands entail major polarizations in epistemic and ontological discussions that continue today (Strauss & Corbin 1990; Glaser 1992; Corbin 1998; Charmaz 2006; Simmons 2011). This discussion itself lies outside the scope of this thesis, but some aspects of this discussion are relevant here and warrant a background exposition against which I can clarify some of the methodological issues I faced while conducting this study.

Although both Glaser and Strauss are set on the study of context within any grounded theory study of phenomena, Strauss clearly put forward an explicit coding strategy that helps in studying this context. This is generally known as ‘axial coding’ (Strauss & Corbin 1990). Axial coding is a formal technique that helps in sensitizing the researcher theoretically by posing questions concerning the context of a specific categorical observation. These questions aim to identify the causes, consequences and conditions that affect the categories identified by the researcher. Although this technique was initially developed to help the researcher in constructing a coherent whole of the fractured categories on the observed phenomenon, the emphasis of axial coding on formalizing the inquiry on context points to Strauss’ concerns about integrating constructive contextualizing strategies into the grounded theory process (Mills et al. 2006).

Glaser does not agree with the addition of this technique or the constructive consequences the technique has led to, because both threaten the process of emergence with unnecessary ‘forcing’ of formal structure onto the data (Glaser 1992). Glaser prefers

this structure to emerge from the data, rather than imposing it upfront. Instead Glaser suggests a range of ‘coding families’ (Glaser 1978) that are less formalizing and less ‘forcing’, but consequently also less logically consistent, internally, and therefore much more difficult to understand and to apply in practice (Silverman 2013). Due to this difference in procedural preference, the formalization of axial coding can be considered as an important breaking point for disagreement between Glaser and Strauss.

Briefly stated, Charmaz’s constructive grounded theory (2006) drives these constructive elements to their logical conclusions and brings the emphasis on research context definitely to the foreground by emphasizing how the situational and social contexts of research affect the construction of grounded theory, hence making grounded theory and the practice of grounded theorizing essentially contingent on the context in which it takes place. Constructivist grounded theory emphasizes that aspect of qualitative data analysis, as it considers data as essentially symbolic and intersubjectively constructed (Glaser 2002, Charmaz 2006). Henceforth, in constructivist grounded theory, the result of grounded theory is analyzed as a social construction. Plainly put, this means that the researcher (participant observer) and research subject (participant) socially construct the research ‘object’. In addition to asking the question, ‘What is actually happening in the data?’ (Glaser 1978, p. 57), the constructivist grounded theorist seeks to determine what the data suggest and from whose point of view (Charmaz 2006, p. 116). Within the act of social construction, both researcher and participant invariably bring their personal experiences and bias to bear.

‘We construct our codes because we are actively naming data – even when we believe our codes form a perfect fit with actions and events in the studied world. We may think our codes capture the empirical reality. Yet, it is our view: we choose the words that constitute our codes.’

(CHARMAZ 2006, P. 115)

An important part of the discussion of constructivist grounded theory concerns the opening up of this underlying condition in qualitative research and owes much of its elaboration to Strauss’ background in symbolic interactionism¹ as a precedent (Simmons 2011). This paradigmatic shift, as far as Charmaz’s constructive grounded theory is concerned, entails that there is no fixed research object to speak of, no objective reality to be studied, only perspectives and subjects. Furthermore, with no given reality available, there is no theory waiting to be *discovered*, only theory that is temporarily and intersubjectively *constructed*. With no given reality available, nothing will emerge and no set of variables can be accounted for; events are constructed from the past into the present, and from the present into a particular future. This position reaches a boiling point and definite divergence from Glaser’s grounded theory, which posits that there is an objective reality that can be studied. Glaser insists that ‘conceptual reality DOES EXIST’ (Glaser 2002, p. 8, emphasis in original), as observed in the many social processes impinging on us every day, which he considers to be very real. Furthermore, Glaser opposes constructive grounded theory for what he sees as an effort to produce more accurate descriptions, rather than fitting abstractions.

This does not mean, however, that Glaser is non-constructive per se, although this may seem to be suggested in this game of oppositions. Glaser does take the personal experience of the researcher seriously and understands its influence on how the research object becomes perceived (Glaser 1978). However, for Glaser it is important to keep these influences in check, for which the general strategy of grounded theory seemed to have been specifically designed: to keep preconceptions to a ‘minimum’ when entering the research field (Glaser 2002, p. 3). Glaser’s ‘minimum’ means that conditions, such as subjectivity, need to be confronted as far as ‘humanly possible’ (Glaser 2002, p. 5) and that such conditions need to be included and accounted for within the empirical process of grounded theorizing. That is, it needs to earn its position within the empirical scope, analytical focus, and hence the developing theory.

Glaser seems to plainly accept that ‘subjectivity’ is part of the researcher’s reality,

¹ Symbolic interactionism is a sociological perspective that holds that people act toward things based on the meaning those things have for them, and these meanings are derived from social interaction and modified through interpretation. From this point of view, people do not respond to a reality directly, but rather to the social understanding of that reality, where this reality can be understood from different perspectives.

but that this reality should not stand in the way of conceiving theory that remains ‘objectively’ grounded in the data.² That is, the researcher can always confidently answer the question of ‘how do you know this?’ because at any point the process can be traced back to the data. Subjectivity should also not overly preoccupy the grounded theorist whose primary concern is the generation of theory. In this regard, subjectivity pertains to just one condition of grounded theorizing, not *the* condition as suggested in Charmaz’s version of grounded theory. Like any variable, subjectivity needs to answer to relevance and fit within the developing theory.

In practice, any of the strands of doing grounded theory involve the collection and analysis of data from which the aim is to generate theory. Whether we speak of the Glaserian way or the Straussian way, ‘the interpretation of data cannot be regarded independently of their collection or the sampling of the material. Interpretation is the anchoring point for making decisions about which data or cases to integrate next in the analysis and how or with which methods they should be collected’ (Flick 2009, p. 306). This positions the interpretation of data at the core of the grounded theory empirical procedure, which includes explicit methods of data collection.

In this regard, it has been argued that the approach of grounded theory is not sufficiently explicit about the implicit theories that guide work at an early stage (Silverman 2013), although this has been given more attention recently (Charmaz 2006). The choice of collection method and how one comes to analyze and interpret the phenomenon of study are subjected to one’s implicit assumptions about it, as well as explicated assumptions about human conduct and intersubjectivity such as in Strauss’ symbolic interactionist grounded theory. Subjectivity, assumptions and choice of method remain important methodological themes that have to be explicated within any grounded theory project. Although the grounded theory approach gives the researcher great freedom in managing his/her data collection strategy, in line with his/her empirical scope and analytical focus, this also means that the choice of method, one’s own predilection, needs to be aligned with and fit the empirical scope, analytical focus and hence the developing theory. This makes the grounded theory approach a highly reflexive process, where the empirical scope and the analytical focus, including one’s own disposition, are constantly monitored and managed. This chapter seeks to do exactly that. It is an account given of my approach to doing grounded theory, where I explicate my process of grounded theorizing as far as ‘humanly possible’. Explicating this dual conception of empirical scope and analytical focus is essential to understanding the emergent theory.

3.2 *The status of video in grounded theory*

In regards to data collection, what to collect as data, and how to collect it, is subjected to interpretation.³ Yet, generally, the grounded theory approach is not overly explicit about what type of data to collect and how to collect it. Nor is it committed to any one form of data, qualitative or quantitative, although the large majority of data used in grounded theory is qualitative. Ultimately, Glaser’s dictum ‘all is data’ is still subjected to the demands of the empirical scope, analytical focus and hence the developing theory (Glaser 2002). The nature of the data is thus contextual. For instance, in the study of interactions taking place between people with severe and complex disabilities and the staff who work with them, video seemed the best, if not the only, method to acquire data on that kind of interaction where there are obvious limitations to verbal communication (Nilsson 2011; Griffiths 2013).

Generally speaking, however, video is still less frequently used as a method (Konecki 2011). This may have to do with the ambiguity surrounding the medium’s empirical value, the technical difficulty and tedium that often come with analyzing it, and the substantial amount of time that is needed to do the analysis (Griffiths 2013). Glaser, however, seems to view the method favourably, but likes to see this choice of method as depending on the demands of the research field (Griffith 2013). Due to this status of the video method, the

⊙ It is good to note here that whenever the researcher stands trial for such a question, it is implicit that constant comparisons are being carried out. The method of constant comparison will be addressed extensively within this chapter.

⊙ In the main, this can seem different from, for instance, conversation analysis or qualitative content analysis. Conversation analysis typically refrains from employing specific methods for data collection other than making recordings of everyday situations. In qualitative content analysis, interpretation of data is typically regarded as a secondary step following more or less refined techniques of data collection. What seems to be a defining feature of qualitative content analysis is the operation of existing theoretical models. Categories are brought to the empirical material and not necessarily developed from it, although the categories may be repeatedly assessed against the empirical material and modified if necessary. This could be said to be critically different from a grounded theory approach, where the categories emerge from the empirical material. (Silverman 2013.)

analytical implications and the effects of video on the grounded theorizing process remain less discussed. Themes that emerge from the nature of the medium are: the effects of the camera being present in the field of research; the density of the data it produces; the effects of the video recording on analytical procedures; and, in extension to the latter, the dual attuning that is required for both the accurate description and abstraction of what takes place in the video recording (Konecki 2008, Nilsson 2011, Griffiths 2013).

It may not be entirely surprising that when it comes to video analysis, the grounded theory approach shares commonalities with the ethnomethodological and conversation analytical approaches, as instantiated in the analysis of interactions, but without the inherent frameworks that inform these latter approaches. In this regard, it remains unclear to what degree frameworks play a role in the analytical procedures that emerge from analyzing video. Due to this situation, here it is necessary to consider in detail the role of video within the grounded theory approach, the analytical procedures peculiar to the method, how they have a bearing on the process of grounded theorizing, and how the medium fits with the empirical scope and analytical focus, and hence the emergent theory.

Within this study, I am interested in how designers present their work to a wider audience and how the nature of the object of design makes a difference in how they go about in doing just that. I intend to do this by studying video recordings made of public design presentations. In this regard, a video recording of a design presentation could be understood as ‘relatively’ objective with respect to the phenomenon.

‘As a matter of faithfulness to the texture, temporal shape and material detail of the scenes they record, the video of filmic record provides remarkably uninterpreted renderings of the field.’

(MACBETH 1990, P. 191).

To answer the basic question concerning how design presentations differ when the object of design is different, I focus on the staged interactions that take place *during* the design presentation that are contingent on the object of design put forth. This is the specific practice I am interested in studying, and video recordings seem to cover the setting, the questions, and the conceptual approach to studying *what* it is that presenters do, *how* they go about doing it and *why*.

‘When using video, much depends on the setting that is recorded, the questions that are asked of the recordings, and the conceptual approach that informs the analysis. However, by choosing the situation carefully, video data can be a powerful tool to “open up” the ... practice.’

(GREIFFENHAGEN 2008, PARAGRAPH 73)

In this approach, I am not strictly Glaserian, nor Strauss-Corbin-Charmazian. The study is clearly framed from the perspective of a particular interest. This may seem un-Glaserian in approach at first and more consistent with the constructive approach. However, when considering the empirical scope and analytical focus, it becomes clear that a strict constructive approach does not capture what I intend to do. This study does not map out the full context of the phenomenon of design presentations. Interest is limited to the staged interactions that take place during such presentations. I am not interested in the presenters per se. I am not out to get a full understanding of their ‘world’ and their views and experiences of presenting. Rather, I am interested in what it is that they do when presenting, and the details of how they go about in doing it. In this regard, fieldwork observations are analytically relevant to the extent they can be gleaned from the videos and their fit with the analytical focus of the object of design within the design presentation. I have had contact with participants, interacting with some of them over a prolonged period of time, and I did take into account the field notes that were produced, but it is clear to me that I spent most of my time interacting with the videos and the theoretical deliberations that came out of that activity. What is captured on a video does not change; how the video is viewed, however, can, and quite drastically so.

The core method in the grounded theory approach consists of three basic procedures that typically proceed in parallel and continuously as the research progresses. The first basic procedure is the procedure of *constant comparison*. For this purpose, one must establish a base unit of analysis (staged interactions *during* a design presentation in my case). This allows one to identify enough of a specified entity or phenomenon to allow comparative study (Glaser & Strauss 1967, p. 25). The unit of analysis can also be understood as a ‘scanning device’ (Foss 2009, p. 12)⁴ for picking up particular specifics and not others. The goal is to sample and compare seemingly similar units and reveal the distinctive elements or nature of the entity in question. With the unit in mind, one can begin to organize a variety of units for the aim of controlled comparison.

This process of ‘organize a variety of units for the aim of controlled comparison’ can also be referred to as the process of *theoretical sampling*. Theoretical sampling is the process of data collection for generating theory whereby one jointly collects codes and analyses data and decides what data to collect next and where to find them, in order to develop a theory as it emerges (Glaser 1978). Theoretical sampling is the second basic procedure, in which one systematically samples and compares units of analysis on various specifics and for theoretical purposes. It is important to note here that, although grounded theory is considered a predominantly inductive process of methodological reasoning (Glaser & Strauss 1967), in which the inductive starting point is always data, the procedure of theoretical sampling also involves a deductive edge. Glaser calls this deductive edge in the procedure of theoretical sampling the ‘inductive-deductive phasing of theoretical sampling’ (Glaser 1978, p. 37). Glaser holds this as the underlying ‘logic of theoretical sampling’ (Glaser 1978, p. 37).

What Glaser’s ‘logic of theoretical sampling’ does, in regards to the inductive nature of the grounded theory approach, is to explicate the deductive nature of, as well as contain it to, the procedure of sampling. What this means is that after particular specifics have been induced from data, these inductions typically guide the process of theoretical sampling further. A direction for the next step of sampling is deduced from it, after which the process of induction retakes control – hence, the term ‘inductive-deductive phasing’. Hence, in its containment, deduction is limited to, and only considered in service of, obtaining further samples and carrying out comparisons. This is important to note here, because this runs contrary to what people typically expect from a grounded theory approach, as being inductive in procedure.

Central to ‘sampling’ and ‘comparing’ for ‘theoretical purposes’ is giving the ‘variety of units’ that emerge from the data a ‘name’. This name-giving process can also be referred to as the process of *coding*, which comprises the third basic procedure in the core method of the grounded theory approach. The process of coding typically starts with *open coding*. This is a substantive coding process, in which the data is organized in codes that refer to the contents of the data, preferably as many as one can possibly make out. For example, these codes could refer to the material environment in which the presentation is given, the slides, transcripts, or specific aspects of the interaction, or something as simple as a video timestamp, but typically highlight salient patterns that emerge through constantly comparing one instance with another. Glaser also refers to this as ‘running the data open’ (Glaser 1978, p. 56).

Initially, these codes may refer to the contents of the data and the particular specifics of what is taking place in the data. However, eventually one will want to arrive at questions that appeal to higher orders of conceptualization that tend to arise from the empirical material rather quickly. In fact, although the grounded theory approach demands one to stay grounded in data, at the same time it demands one to emancipate oneself from it in order to theorize based on it, done by for instance active memo writing. This bipolar stance is typical of a grounded theory approach.

Typical questions that lead one away from the substantive material may include, ‘What

⁴ The term ‘scanning device’ is borrowed from Foss (2009, p. 12). One of Foss’ suggested approaches for generic rhetorical criticism, described in her handbook, resembles a grounded theory approach specified in the field of rhetorical criticism, which makes her method congruent enough to be taken into account here. Although her approach may be limited to a single sample and results in a theory of one, rather than a grounded theory, sampling also takes place in generic criticism. The resemblance is particularly apparent when one considers her practical advice, e.g. her suggestion to use piles to organize data and reports, the principle of jeopardy in regards to research questions, the later inclusion of extant literature, and the emphasis on one’s originality. The value that is placed on description might be different, however.

is this data a study of?’ Or further, ‘What category or property does this incident indicate?’ Or even further still, ‘What is actually happening in the data?’ and ‘What accounts for the basic problem and process?’ (Glaser 1978, p. 57) This progressive questioning results in a kind of name-giving process that is induced from the data, but reflects back on, and to, the process of theorizing itself. One is now no longer coding substantive aspects, but coding theoretically in terms of an emergent theory. In a sense, one is always coding theoretically in a grounded theory approach, but the term ‘theoretically’ is used here to indicate and emphasize that part of theoretical coding that reflects the process of theorizing that emerges from the data. This side of the coding process is called *theoretical coding* and refers to the process of giving names to the potential relationships one may find amongst the codes one creates. In regards to theoretical codes, Glaser says:

‘Theoretical codes conceptualize how the substantive codes may relate to each other as hypotheses to be integrated into the theory. They, like substantive codes, are emergent; they weave the fractured story back together again.’

(GLASER 1978, P. 72)

Following Glaser's words, it is important to emphasize that theoretical codes represent relationships within the emergent grounded theory. In a grounded theory approach, these theoretical codes pertain to ‘hypotheses’ and are particularly productive in leading to further theoretical sampling and comparisons.

This coding process typically proceeds in three steps. First, one compares instance to instance for emergent categories and/or properties. Second, once categories and/or properties have emerged from that comparison, one seeks to inductive-deductively compare the category and/or property with other instances and, in reverse, other instances with that category and/or property. Third, one compares the various categories and/or properties with one another. This process is not necessarily consecutive, but can be. Also, this does not mean that once all three steps have been gone through, one remains at a conceptual level – on the contrary. These three steps are to be repeated as many times as needed and one may jump from one step to the other quite rapidly. The point is that one will frequently find oneself returning to the data for guidance on what to compare, what to sample, and what to code next.

The end result is a web of interconnecting names, where the challenge is to trace the centrepiece of the web. Finding the centrepiece also involves constant comparisons, further theoretical sampling and coding, and typically makes the web theoretically dense as more names emerge. At this point in the process, one may even feel that one has reached the point of diminishing returns in terms of the conceptual insight that the method yields. This may indicate that a saturation point is in the offing, which in a grounded theory approach is known as a state of theoretical saturation⁵. Typically or ideally, the reaching of a saturation point coincides with the discovery of the centrepiece, or what in a grounded theory would be referred to as the *core category*. The core category represents the core problem or core process that plays out in the data one has collected on a particular phenomenon. The core category captures a basic social problem/process that one faces within the recorded phenomenon. With the core category as the centrepiece of a problem/process in the web of categories and properties around it, representing dimensions of this problem/process, one has effectively discovered, abstracted and described a *grounded theory*. This is a temporary crystallization of conceptual terms and relationships that is to be regarded as a snapshot in time. It is not permanent, since the problem/process, and hence theory, is necessarily ever evolving (due to ever evolving environments and social relationships). The point is that this is a description of theory that is both emergent and grounded in the data. Thus, the ultimate purpose and desired end result of a grounded theory process is a grounded theory – that is, a grounded theory that manages to capture a basic problem/process within a particular phenomenon.

⑤ Whether theoretical saturation represents a ‘state’ or a ‘process’ is beyond this examination. However, Glaser seems to be describing it as a process, rather than a state. Suffice to say that in my case, the state does represent a process in regards to the theoretical formulation of the core category.

Although some design studies have drawn on video material, the method of video analysis remains often undescribed. There is plenty to be said for video analysis as a focus of study in its own right, especially when attempting to combine it with a grounded theory approach. My departure point in combining the two distinct practices is Schubert's methodological paper titled 'Video Analysis of Practices and the Practice of Video Analysis: Selecting field and focus in videography' (Schubert 2012). This paper concerns the study of surgical practices, conducted within a framework of ethnomethodology that is combined with an analytical focus on understanding human and non-human interaction. Using this study, I will address the difference the video technology makes and how it affects the basic concepts and procedures in a grounded theory approach, and what practical problems may emerge from this combination.

3.4.1 Practical problems in the combination of video analysis and a grounded theory approach

Handbooks on the grounded theory approach usually do not address the treatment of video analysis at a methodological level in specific detail, although the mantra 'all its data' is certainly meant to include audio/video recordings as well. However, when combining video analysis with a grounded theory approach, we come across two interrelated problems that need to be discussed methodologically.

First, the prime reason why video analysis poses a problem is related to the bearing that the format of the video recording has on empirical scope and analytical focus. Recording and playback capabilities allow for access to an immense richness of data, providing details on the minutiae of what takes place in the data and what can potentially be sampled, compared and coded from the data. The means for interpretation can thus vary quite drastically based only on a few minutes of video.

It is exactly this particular quality that ethnomethodological studies have come to capitalize on. However, in terms of a grounded theory approach, in the face of this level of richness, it becomes increasingly difficult to answer and pinpoint typical questions – such as 'What is this data a study of?' or 'What category or property does this incident indicate?', or 'What is actually happening in the data?' or 'What accounts for the basic problem and process?' (Glaser 1978, p. 57) – without having some form of pre-understanding of what is occurring in the first place. In other words, the video recording does not proceed within a vacuum; if one tries to take the video 'objectively' or at face value, one may forego the necessary reflexivity that takes place in regards to the contents of the video, how it is studied, and *what* it is exactly that makes it different, hence stifling an important part of the grounded theory process (Glaser 1978).

This brings one to the second, and related, problem. Video allows such scrutiny of detail that the vastness of scope seems to necessitate a focal point for analysis, an emancipating gaze, in order to become productive at all. In other words, a pre-understanding of what is going on in the video, and what one is interested in understanding from the video, becomes a methodological resource in analyzing video. Indeed, for video analysis to be practical and productive, a theoretical stance seems necessary. Here we reach a boiling point in regards to the grounded theory approach, which explicitly stipulates a minimal interference of preunderstanding and prior frameworking or theory before engaging with the data (Glaser & Strauss 1967). This boiling point can be expected to leave its mark on the core procedures discussed in the previous section: constant comparison, theoretical sampling and coding. Even the state of theoretical saturation will not be left unaffected. Now, to appreciate these two interrelated problems, I need to turn my attention to Schubert's study (2012), which allows me to discuss these matters in more detail and examine how the use of video technology affects core procedures in a grounded theory approach.

● Knoblauch recognizes the controversy raised by his use of the term. Hence in the volume in which it appears, it is grouped under the rubric 'Innovations in Special Methods'. I will not go into a detailed discussion of the term. In regards to his article (Knoblauch 2005), it is enough to note that, firstly, I am not doing ethnography but a different kind of research altogether, although some conduct may be overlapping with ethnography – perhaps a form of 'focused ethnography'. Secondly, just to give some background to the term in regards to the purpose of differentiating focused ethnography from conventional ethnography, Knoblauch says the following: 'As a strategy of research, focused ethnography does not necessarily relate to a new phenomenon. Indeed, it is a strategy that has been widely used particularly in the investigation of research fields specific to contemporary society which is socially and culturally highly differentiated and fragmented: The pluralisation of life-worlds and the enormous specialisation of professional activities demands ever detailed descriptions of people's ways of life and their increasingly specialised and fragmented activities.' (Knoblauch 2005, p. 1). Thirdly, that Knoblauch's entry point in this distinction is the concept of 'bestrangement' that is considered to be a defining feature of doing ethnographic work. He comments that 'bestrangement' does not seem to cover the ethnographic work that concerns studies that are not undertaken in a foreign culture. Hence, his replacement of the concept of 'bestrangement' with the concept of 'alterity', which seems to cover better the ethnographic work that is conducted within contemporary society. This results in a methodological difference in stance, against the background of which focused ethnography can be conducted. Fourthly, the general driving force of focused ethnography is, indeed, the availability of technological recording devices that, he believes, inevitably influence the way ethnography is conducted nowadays. In terms of grounded theory, however, all this is irrelevant, of course. The question of whether one does 'strangeness' or does 'alterity', makes use of

cameras or not, matters little, since both are considered empirically valid. The question becomes, instead, to what degree is this relevant to the emergent theory? How does this stance earn itself a role within emergent theory? In my case, the relevance needs to be explicated in terms of the analyst's background as a designer and the analyst's special interest in how designers communicate their design under trending troubling circumstances.

In his paper, Schubert reports on an ethnographic study of work practices in surgical operating rooms (OR), where he employs video recording as part of ethnographic work. Based on Schubert's paper I will put forward three aspects for discussion in regards to establishing scope and focus when combining video analysis and a grounded theory approach: 1) his use of an ethnomethodologically informed framework, 2) his vested interest in human and non-human interaction as in actor network theory (ANT), and 3) the determining nature of the video technology in grounded theory procedure.

Schubert frames the practice of video analysis within a wider practice of ethnography – hence, the reference to ‘videography’ in the subtitle. In short, videography ‘can be considered as a kind of ethnography using video’, or a form of ‘focused ethnography’ (Knoblauch 2005; Schubert 2012, p. 69)⁶ that is savvy with technological recording and playback devices, and hence the handling of the copious data that these generate for research. Conventional ethnography may be time-intensive, requiring long continual periods of fieldwork, whereas a form of focused ethnography, such as videography, tends to have shorter periods of data collection. (Knoblauch 2012.) However, the short time periods covered ‘are compensated for by another type of intensity: videography is enormously data intensive’ (Knoblauch 2012, p. 72). In addition to the copious amounts of data generated in a very short time period, this intensity refers to the intensive, detailed, frame-by-frame data analysis that follows. Although studies employing video recordings typically develop concurrent with more conventional forms of fieldwork (such as participant observation, documenting, and interviews), they do so only to the extent that is needed in regards to understanding what takes place in the video recording (Heath et al. 2010). The point is that the medium of the video recording makes a difference in regards to scope and focus within ethnographic work.

What this means is that the possibility to record the slightest of interactions allows a degree of focus that lends itself well to the detailed study of ‘particulars of situated performance as it occurs naturally in everyday social interaction’ (Knoblauch 2012, p. 72).⁷ This also means that what is captured on the video ultimately tends to delimit both the scope and focus. As one may notice, this aligns the discussion of video with studies in fields such as ethnomethodology (Garfinkel 1991) and conversation analysis (Sacks et al. 1974), but augmented with, if not determined by, video-intensive data (Heath et al. 2010).

This organization becomes particularly apparent in the way Schubert presents his empirical observations as snippets in the paper and what these snippets focus on.

● In regards to scrutinizing ‘specific actions, interactions and social situations’, Heath, Hindmarsh and Luff (2010) point out that analyzing video material can be very difficult and time consuming, given the extraordinary detail found even within a few moments of video. However, it is because of this extraordinary detail in video that it serves well for studies that prioritize the situated and interactional accomplishment of practical action. Heath et al. push the envelope further by explicitly employing video ‘as an analytic resource with which to explore, discover and explicate the practices and reasoning, the cultures and competences, the social organizations on which people rely to accomplish their ordinary, daily activities’ (p. 5).



Figure 3.1: Snapshot of intubation by a novice doctor (Schubert 2012, p.121)

'In our example, we compared the interaction of experienced nurses with either trained or novice anesthetists. In the first case, the nurse waited for the signals for coordination from the doctor, which were given in the form of swift gestures. Thus, each sequence in the interaction was initiated by the anesthetist, which points to two interesting aspects of OR cooperation. First, the nurse recognises the doctor's authority concerning the procedure and takes on the role of an assistant and the traditional hierarchy of doctors and nurses is maintained, secondly, the nurse displays a high degree of competence, since she is able to react appropriately to even the slightest cues, like a quick nod or swift hand movement. The nurse assisting the novice doctor does basically the same, but she does so before the doctor signals her. By presenting the relevant instruments and nodding towards the patient, she is giving cues to the novice as what to do next. She arranges the instruments and tools in a way that makes it easier for the inexperienced doctor to successfully finish the intubation. By manipulating the material environment, she is able to instruct the novice by assisting him without having to use words. [In figure 3.1] she is handing over the tube without letting it go as the novice doctor reaches for it, thus making him aware of the special position the tube needs to be in before insertion. Again, the traditional hierarchy is maintained, but only on a superficial level, with the nurse skillfully coordinating the interaction in a way that is barely visible to the naked eye.'

(SCHUBERT 2012, P. 122, FIGURE NUMBER CHANGED ACCORDINGLY)

The snippets resemble in length and contents to the length and contents of interactions typically employed as snippets in studies that are ethnomethodologically or conversation analytically informed. In Schubert's case this meant snippets lasting between 30 to 90 seconds of doctors and nurses inserting tubes into patients' throats (Schubert 2012, p. 8). From this passage alone, in terms of scope and focus, we may immediately note his interest in the ethnomethods that are employed within the OR and his overriding interest in human and non-human interactions (actor network theory or ANT) and how these organize his analysis in terms of scope and focus.

Schubert's study is located at the intersection of the ethnographical and ethnomethodological projects. In terms of scope and focus, he makes use of ethnographic fieldwork to make sense of what is going on in the video recording, and an ethnomethodological framework of social interaction to extend his understanding on how the built environment figures within that interaction. (Schubert 2012, p. 116). So, in regards to the video recording, Schubert seems to be organizing his empirical observations across two axes: an ethnomethodological framework and ANT⁸.

3.4.3 *Theoretical sensitivity to the basic problem/process*

A central tenet in Schubert's paper is the comparative workability and possible fit between the two practices of videography and a grounded theory approach.⁹ That is, to strike a balance in scope and focus within a research process that is receptive to its analytic background, whilst remaining open to the contingencies of normal, everyday routine action and interactions.

Schubert starts by saying that when dealing with video analysis, it is important to note that the observations one makes

'are naïve in the sense that they need to be open to the phenomenon of the field without a pre-determined set of observation criteria, yet they are not so naïve, because a large amount of contextual knowledge needs to be generated first and the relevant analytical perspective needs to be constructed in order to frame the observations.'

(SCHUBERT 2012, P. 117)

So, in order to make sense of the recording one inevitably brings to bear a necessary frame of reference, developed from an immutable degree of assumption, that allows for reasonable sense making. This aspect is also pointed out by Jordan and Henderson (1995)

⑧ It is not necessary to elaborate on ANT here. The point is that it serves to illustrate how the concept of ANT affected Schubert's process of grounded theorizing.

⑨ The discovery of this fit could be considered as Schubert's contribution to grounded theory, as in a grounded theory itself.

when they say, in regards to doing video analysis, that: ‘Analytic work, then, draws, at least in part, on our experience and expertise as competent members of ongoing social systems and functioning communities of practice’ (Jordan and Henderson 1995, p. 3). To emphasize the point, in terms of establishing scope and focus, Schubert considers how the observation is constructed (Amann & Knorr Cetina 1988) and how it is necessarily related to the theoretical assumptions developed by the analyst. However, he does so with the knowledge that hard-line grounded theorists reject the idea of using preconceived theoretical frameworks for making initial decisions on what to study (Glaser 1978). However, he notes that there is room for theoretical sensitivity (Glaser and Strauss 1967, p. 46). It is exactly this concept of theoretical sensitivity that allows Schubert an entry point for introducing the role of frameworks and theory in establishing scope and focus within a methodology that combines video analysis with a grounded theory approach. To understand this better, it is worth elaborating on Schubert’s considerations that are at play here.

According to Schubert, this hard-line with grounded theorists creates an uneasy situation: The analyst

‘can neither shed all prior knowledge, nor should preconceived theoretical frameworks interfere with data collection.’

(SCHUBERT 2012, P. 115)

So, he continues,

‘there remains only the solution of commencing research by explicating the theoretical research focus, while at the same time remaining open to the peculiarities of the field.’

(SCHUBERT 2012, P. 115)

Schubert states that this aspect of maintaining sensitivity to both theory (analytical focus) and field (empirical scope) is a persistent facet of doing videography. This is not very different from how Glaser and Strauss (1969) initially suggested including theory in one’s inquiry:

‘Nevertheless, no sociologist can possibly erase from his mind all the theory he knows before he begins his research. Indeed the trick is to line up what one takes as theoretically possible or probable with what one is finding in the field.’

(GLASER AND STRAUSS 1969, P. 253)

However, by suggesting a correspondence between the two practices in terms of establishing scope and focus in theory and field, Schubert has at least opened up the practice of doing videography to a grounded theory approach by means of grounded theory terminology: theoretical sensitivity. For Schubert, theoretical sensitivity plays an important role in establishing scope and focus as well as for combining the two practices. Yet, he seems to be troubled by the inclusion of theory and needs to give it a place within his commitment to both practices.

From the outset, in Schubert’s paper, theory arises as problematic, for the simple reason that in his case it did impose a problem when he sought to merge it with grounded theory procedures. I will illustrate why. Schubert quotes Glaser and Straus on this and defines it as the analyst’s ‘theoretical insight into his area of research’ (Schubert 2012, p. 115). Retracing the original passage in its entirety will help to illuminate Schubert’s later advancement in the paper:

‘The sociologist should also be sufficiently theoretically sensitive so that he can conceptualize and formulate a theory as it emerges from the data. Once started, theoretical sensitivity is forever in continual development. It is developed as over many years the sociologist thinks in theoretical

terms about what he knows, and as he queries many different theories on such questions as “What does the theory do? How is it conceived? What is its general position? What kinds of models does it use?” Theoretical sensitivity of a sociologist has two other characteristics. First, it involves his personal and temperamental bent. Second, it involves the sociologist’s ability to have theoretical insight into this area of research combined with an ability to make something of his insights.’

(GLASER & STRAUSS 1969, IN CHAPTER 3 ON THEORETICAL SAMPLING, P. 46)

From this paragraph, especially the open-endedness in the suggested ‘two other characteristics’, it seems as if this description of the concept of theoretical sensitivity was designed to be inconclusive. What strikes me about this paragraph is the degree to which personality and intuition play a role in doing grounded theory. This concern with keeping one’s individuality and intuition ‘in check’ through constant comparison continues in Chapter 11 of the same book, as a direct continuation of this paragraph, and is further elaborated on in Glaser’s book *Theoretical Sensitivity* (1978), which contains many passages that take into account the analyst’s ‘personal and temperamental bent’ (see for example his chapter on theoretical pacing, in part devoted to managing one’s temperament).

Coming back to Schubert, however, it is this ‘loose’ concept of theoretical sensitivity that provides him with a welcome opportunity to bypass the hard-line and establish a role for theory in doing video analysis that, in part at least, can be potentially aligned with grounded theory procedures. Suddenly, one’s ‘personal and temperamental bent’ governs, in part at least, some of the grounded theory process, which for Schubert seems to include his overriding interest in human and non-human interactions (ANT), now safely grouped under that rubric.

‘Thus ANT, in our case, is used not as a theory, but as a methodological instrument for epistemic purposes, putting the researcher in the position of a stranger.[10] It is now possible to qualify the naïve, yet not so naïve, observations further. They are naïve in the sense that they need to be open to the phenomena of the field without a predetermined set of observation criteria, yet they are not so naïve, because a large amount of contextual knowledge needs to be generated first and the relevant analytical perspectives needs to be constructed in order to frame the observation.’ (Schubert 2012, p. 117, footnote added)

Thus, aspects of ANT – now referred to as ‘theoretical insight into his area of research’ – enter the practice of video analysis. By combining this insight with a grounded theory approach, he transforms it into ‘a methodological instrument for epistemic purposes’ (Schubert 2012, p. 117). ANT comes into play as a means for focus and as a methodological means that can be considered to be a technological instrument on par with the video camera and the resulting video recording, while, in terms of grounded theory, being safely grouped under the rubric of ‘personal and temperamental bent’. However, in fact, it turns out that his interest in human and non-human interaction continues within his study as indicative of a *core category*.

In studying two cases, one involving an experienced doctor and the other a novice doctor, Schubert seems to follow the ‘concept-indicator model’ procedure stipulated by the grounded theory approach (Glaser 1978, p. 62). We may consider both of these cases indicating concepts such as ‘professional competence in OR’ and ‘maintaining doctor-nurse hierarchies in OR’. However, the emancipating criteria that turn both instances into units along a dimension of variables comprise the theoretical code (a hypothesis) in regards to the human and non-human interaction. This conceptualizes the two instances into a single typology of how ‘competence’ maintains ‘hierarchy’ under ‘varying observable conditions of the human and non-human interaction’.

However, the degree to which this category emerged from the data is questionable. It is more likely that this category was informed based on the background against which this study was conducted. Either way, Schubert still seems to meet the ultimate criteria

See concept of ‘bestrangement’.

00 The discovery of human and non-human interaction is clearly central to what goes on in the OR. Such interaction occurs often in Schubert's data. I believe him when he suggests that it relates meaningfully to the other substantive codes, such as hierarchy and competence, and that the connection between them does not need to be 'forced' (Glaser 1978, p. 4). It may be questionable, however, whether the discovery resonates with the participants under study, whether it has 'grab' (Glaser 1978, p. 27). In fact, the danger exists that the discovery may have such 'grab', not on the participants, but rather on the analyst instead, and that the analyst might 'generate a false criterion' where he/she 'begins to see the core category in all relations, whether grounded or not' (Glaser 1978, p. 96). Regardless of participant interest, Schubert's discovery may prove to be of value on a formal level as a 'sociological construct' (Glaser 1978, p. 70), something that adds 'scope by going beyond local meanings to broader sociological concerns' (Glaser 1978, p. 70). As such, Schubert's discovery of an ethnomethod in relation to a basic social process within a set environment certainly goes to show his work as involving grounded theorizing with ultimately grounded theory aims.

00 Of course, there always lingers the impending possibility, especially with a handheld camera, that what one thinks one is able to get from video is exactly what one gets. However, a grounded theory approach and the process of constant comparison based on procedures of theoretical sampling counter this tendency.

of the grounded theory approach, which is that any inclusion must be guided by the emergent theory and needs to survive the test of constant comparison – that is, *its inclusion needs to be earned* (Glaser 1978, p. 64). In this respect, as a resulting conceptual code, aspects of ANT hold an important function for Schubert, methodologically, in regards to grounded theory procedures:

'[The conceptual code] gets the analyst off the empirical level by fracturing the data, then conceptually grouping it into codes that then become the theory which explains what is happening in the data. Coding for conceptual ideas is a sure way to free analysts from the empirical bond of the data. It allows the researcher to transcend the empirical nature of the data ... while at the same time conceptually accounting for the processes within the data in a theoretically sensitive way.'

(GLASER 1978, P. 55)

So, if it is not clear whether concepts of ANT itself have emerged from the data, coincidentally or not, its relevance certainly did, as an *emergent fit* (Glaser 1978, p. 8).

In studying routine activity in the OR, Schubert discovers that a competence (an ethnomethod) provides an answer to a basic problem/process, or what Glaser refers to as a *basic social process* (Glaser 1978, p. 100), e.g. 'tooling competence in maintaining hierarchy', or something along those lines, that has perceivable stages under varying conditions where 'expert knowledge and practice are seen not so much as located in the heads of individuals but as situated in the interactions between members of a particular community engaged with the material world' (Jordan & Henderson 1995, p. 2). It is a situated process of change, where the material environment is cunningly manipulated to maintain a fragile balance between hierarchical concerns and operational practicality, whose 'critical junction' (Glaser 1978, p. 99) of stages depends on the participant's competence levels in engaging with the built environment within that situated practice. These discernable stages can then function as a heuristic, demarcated by the analyst for theoretical reasons to conceptually give order to a given reality of professionals operating within an OR environment. This is a 'basic' problem/process, because no matter what the analyst does, s/he cannot change this substantive process; s/he can only account for its variety, e.g. experienced and novice doctors.¹¹

With this discovery in relation to a basic problem/process, although it is understated in the paper, one may reflect back on the grounded theory procedure that led him to this discovery in the first place. There, one may find that, in actuality and in terms of the grounded theory approach, aspects of ANT became integrated into a theoretical coding scheme. So, it no longer matters whether a dictum comes from ANT. It has earned its place in the emergent theory. Schubert may have held an interest in ANT all along, but it is not until this point that this interest has proven itself to be theoretically relevant to the situation at hand. In this way, Schubert upholds his interest in ANT, whilst at the same time remaining open to what happens in his observations, such as a careful tracing of contingency in terms of 'hierarchy' and 'competence'.¹² That is, Schubert keeps his personal interest in check, whilst 'running the data open' to basic questions of the grounded theory approach.

With this exposition of Schubert's work, I have explicated the role of theoretical concepts, such as ANT, as part of both existing and developing theory. Its role was to be assimilated within the emergent theory of a particular ethnomethod that is both captured within the video recording and grounded by it. That it happens to comprise the precise mobilization of material resources can be considered both incidental and not so incidental, yet revelatory in terms of accounting for its aspects of contingency. Here, one can also note the useful employment of Schubert's ethnomethodologically informed framework in scrutinizing competence and contingency in everyday interaction. It is relevant for my study to acknowledge that both framework and theory do play a role in establishing scope and focus when combining video analysis with a grounded theory approach.

In terms of grounded theory, one can summarize Schubert's approach as follows: *'Make comparisons of an array to generate theory, principally using categories that are derived from existing theory and limited by use of only two major comparison groups.'* This summary, then, may seem to cover the main characteristics when combining video technology with a grounded theory approach. Amongst them one finds an 'array' that is predominantly limited by the video recording, the adoption of 'categories' that are limited by the video recording and a small number of 'major comparison groups' that are also limited by the video recording. To emphasize the point, in combining video analysis and a grounded theory approach, the direction of the research process is determined by the video recording, or as Schubert puts it:

'The video camera and video playback equipment serve as instruments that render specific properties of observable phenomena visible. In contrast to the naked eye, the more confined scope of the video camera makes us aware of the selections we have to make during observation, but video recordings in return offer a very rich corpus of data for detailed analysis. For this reason, video recording and analysis in videographic research should be considered focusing devices which are embedded within a larger context of multiple methods, ranging from participant observations to interviews and producing very detailed accounts of selected phenomena in the field.'

(SCHUBERT 2012, P. 124)

This process of reviewing video data, Schubert notes, can be considered similar to the process of coding in a grounded theory approach, where sequences are assigned categories and properties through repeated viewing as sampling and comparative analysis, or as he puts it:

'In the practice of video analysis, this process resolves into the multiple steps and iterations of analyzing videographic data, which are oriented towards the relevance of the material for the research question: a) selecting key sequences: looking for intubations with respect to novice/expert differences, b) repeated viewing: with slow or fast motion and c) systematically comparing different cases: from small and large hospitals in Germany and abroad for example.'

(SCHUBERT 2012, P. 120)

3.4.4 Theoretical sampling and theoretical saturation in video analysis

It is at this level where Schubert is more explicit in addressing a potential fit between the two practices, in regards to three key grounded theory operations: 1) theoretical sampling, 2) selecting comparison groups and 3) theoretical saturation.

All forms of data are selective and video data are no exception. Using video recording as data in research inevitably affects the method of selection via *theoretical sampling*. This begins with where the camera is positioned, how it is focused, the number of cameras you use, and whether the camera is static on a tripod or handheld.¹³ Such decisions have an impact on the data one collects and the analysis one is able to make. For Schubert, this tendency is innate to video technology.¹⁴

In his case, Schubert makes use of a roving camera.¹⁵ However, a roving camera has an immediate effect on the grounded theory approach. For Schubert, the importance of theoretical sampling for selecting scope and focus becomes particularly clear here. The procedure of theoretical sampling commences as soon as the camera is turned on and positioned to record from any one specific angle. As the camera begins recording, zooms in, zooms out, takes a particular angle, one may assume that a certain choice has been made. Whether this happens implicitly or explicitly does not matter. The procedure of theoretical sampling is immediately affected by what is in the frame and what is outside of it, and hence theoretically guided by, as well as guiding, the researcher's interests and the analysis that follows in the editing studio.

Closely related to theoretical sampling is the selection of *comparison groups*. Schubert recounts the use of a handheld camera as slightly troubling because:

☞ I do not know how much video Schubert recorded. However, since he refers to the intubation procedure as the beginning of the operation, and reports that recordings were made both inside and outside the OR, at times following participants as they walked out of the OR, suggests that he recorded more than just the 30- to 90-second event that he then scrutinizes in the paper. More likely, I can assume that he may have tried to record as much as possible in the time they were given in and around the OR. This also indicates that some form of selection must have occurred in the following steps of his research.

☞ As Schubert suggests, the scope of the videographic perspective is defined by the research interests, not by a desire for exhaustive documentation. Its focus is necessarily delimited by what is ultimately captured in the video recording. One may be tempted to want to 'film it all', but one simply cannot. The camera is limited to capturing one angle at the time, and even with all the cameras in the world, the researcher cannot cover everything.

☞ Depending on the phenomenon under study, arguments can be made for either a roving camera or a fixed camera. Heath et al. (2010) describe a number of settings where a choice can be made on using either a roving camera or a fixed one. For obvious reasons in regards to the OR environment, such as safety, very tightly orchestrated action across limited work spaces, easily blocked views on the action, etc., Schubert elaborates on the preference he developed for using a roving camera and not using static cameras and tripods. For a debate on tripod versus handheld, see Heath et al. (2010, p. 42) for a discussion between Mead and Bateson. The practice of collecting video can be quite complicated. Mondada (2012) makes the point that video capture is a reflexive preservation of particular features of the phenomenon. Video footage can be captured by more than one camera. Moreover, in considering the way this footage is made, it can be shot by both researchers and the subjects under study. Hence, in the collection of video on a particular phenomenon, this collection of video, due to its different perspectives, etc. can become a kaleidoscopic view on the phenomenon under study.

'Consequently, the video recordings are highly idiosyncratic.'

(SCHUBERT 2012, P. 118)

Although data being 'idiosyncratic' may not necessarily pose a problem for grounded theory – since the emergent theory stands on the conceptual category, rather than on what it is drawn from specifically and literally, and even if it does, it may beneficially modify the emergent theory – it does so for Schubert.

'To overcome the limits of mere snapshots of interactions, one can follow Glaser and Strauss by selecting comparison groups. Since procedures in routine anaesthetization are rather standardized, it is possible to define different stages and activities that can be compared with one another. In GT the groups are selected according to their theoretical relevance: group comparisons "are made by comparing diverse or similar evidence indicating the same conceptual categories and properties" (Glaser & Strauss 1967: 49). In the study of cooperative work sites, this often translates to comparing the interactions in mixed teams (humans and non-humans).'

(SCHUBERT 2012, P. 118)

Hence in selecting comparison groups, Schubert is following standard grounded theory procedures of constant comparison, in which the indications to conceptual codes are more important than the snapshots themselves, although, logically, the latter are necessary for deriving them in the first place. In the constant comparative method one may find multiple snapshots indicating the same category, which is constantly checked through constant and comparison.

Something that helps in establishing comparison groups is the extracting of 'procedures' or routine action, or what Heath et al. refer to as 'the methodic character of practical action' (Heath et al. 2010, p. 83) – in short, 'tasks'. While each event can be considered unique to the occasion in which it is accomplished, it is possible, even based on the analysis of a limited amount of video data, to begin to identify potentially generic features of an activity in terms of particular tasks. Note here the way ethnomethodological elements are endogenized in Schubert's own coding scheme.

As the example snippet illustrates, handling video may pose a challenge due to the extraordinary level of detail found even within a few seconds of video. The richness of detail, captured in the data, may, at least in the first instance, resist any further reduction to categories or codes. This problem is also acknowledged by Heath et al. (2010) and may prove problematic within grounded theory procedures, which rely on a smooth generation of categories and codes. However, the ability of a video recording to preserve the original recording for repeated scrutiny, as Heath et al. (2010) suggest:

'allow(s) for multiple takes on the data – to explore different issues on different occasions, or to consider the same issue from multiple standpoints.'

(HEATH ET AL. 2010, P. 6)

It is this quality of video that allows Schubert to formulate his own path for video analysis within a grounded theory approach (and in the process helped me in formulating mine). The procedure of selecting comparison groups is limited by the scope that is covered by the video recording. The selection of groups can then be repeatedly compared with one another through repeated watching, while following one's theoretical interests. Hence, the procedure of theoretical sampling is carried over into the editing studio, where one samples at the video recording level by repeatedly watching the video recordings to identify comparison groups. Note that we are now away from the field and within the confines of a studio watching videos, and those videos only, where a video recording may potentially be sampled for multiple and various theoretical purposes.¹⁶

Although grounded theory treatment of data is predominantly aimed at theoretical elaboration based on data, rather than the description of the data, a video recording

66 At times, as Schubert suggests, the video recording may venture out of the studio confines and interact with participants, to the benefit of the researcher. However appealing this procedure may sound, it is better phrased as 'bringing in the participant into the studio' and watching the samples together with the analyst. In this respect, choosing comparison groups is still very limited in scope and focus by the video recording. What Schubert calls the selection of comparison groups is in fact simply the continuation of the theoretical sampling when the video recordings need to be organized in the studio.

as a data source allows for such detailed scrutiny and such diverse interpretations that a description of its contents seems necessary in advancing and understanding a particular interpretation or a select number of interpretations based on the video. This results in a different way of eventually interpreting and codifying the data. In coding the video recordings, the categories do not necessarily reveal themselves explicitly as a single category name, but emerge implicitly in the description of the video recordings. On one hand, a single video snippet can be interpreted in such different ways that each interpretation needs to include a description of what is being interpreted from the video. On the other hand, the interpretation is limited to such a degree that it is mainly the video recording that is predominantly being analyzed and where incidents are drawn from. However, since many categories may be drawn from a single instance, interpretation of the instance becomes a multi-description of a single instance in the video recording. So, as exemplified by Schubert's snippet on the OR, the focused manner in which the recording is addressed results in an extended multi-angled description, not a single category title – that is, the video needs to be explained first in terms of what is seen and what is not seen.

This methodological pressure brings me to the third grounded theory concept of *theoretical saturation*, or plainly put: 'How much video data is enough?' This is a question Heath et al. (2010) address but which, as it turns out, they do not answer conclusively:

'It depends on the nature and demands of the setting, the actions and activities that are being addressed and of course, most fundamentally, the methodological commitments that inform the collection and analysis of data.'

(HEATH ET AL. 2010, P. 59)

For grounded theory, the 'simple' answer would be: until no new conceptual insight is generated, that is, *theoretical saturation* is reached. How does this work out with doing video analysis?

For Schubert, theoretical saturation resolves into multiple steps and iterations of analyzing video material, which are organized in terms of one's theoretical interest: 1) selecting key sequences, 2) repeated viewing with slow or fast motion and 3) systematically comparing different cases under varying circumstances that are guided theoretically. Schubert then adds:

'Each sequence will be analysed, i.e. repeatedly watched and discussed, until a sufficient level of theoretical saturation is reached.'

(SCHUBERT 2012, P. 121)

So, the scope of video, then, is limited to the focus on the relevant sequences, captured from the field, which have been selected according to emergent theory and analyzed until theoretical saturation is reached. What this means is that a state of saturation is achieved and theoretical sampling of video material stops when enough variety of sequences have been looked at, within the scope and focus of the study, and no more categories (including contradictory categories to the theorizing) emerge from the video material.

3.4.5 *Implications for this study*

So, in conclusion, Schubert uses grounded theory terminology as 'illustrative' of how to establish scope and focus in research that is both based on video data and controlled by theory. Many of the methodological concerns covered by Schubert are of immediate relevance for and applicable to my study of design presentations. Video analysis forces one to be sensitive to the field, and grounded theory approach forces one to be theoretically sensitive as well. The central mode of operation in video analysis consists of making

distinctions and comparisons, iteratively introducing order into the empirical material. In this, video analysis should be considered as a distinct way of focusing.

It is important to bear in mind that it does not produce or reproduce reality but that it is an artefact, which both determines and helps in the reconstruction of particular practices due to its obvious technological capabilities. Although the video footage does not change, how one comes to interpret it can, and quite drastically so, across the many times it is viewed. This depends on the theoretical bearing that comes with viewing it, as well as the set of questions that are addressed with it. In this sense, like videography can be understood as a focused form of ethnography, doing video analysis in the way Schubert portrays it can be understood as resulting in a 'data type-limited' form of doing grounded theory.

It is important to bear in mind that, like Schubert's theoretical lesson, many of the other theoretical concepts addressed in the background chapter persist throughout my own grounded theory process as codes, categories and properties. Like in Schubert's case, they also resulted in particular typologies. So, like Schubert, I endogenized theoretical concepts into my own coding scheme.¹⁷

Like Schubert's work, my study is limited to one specific phenomenon, one unit of analysis: the staged interactions that take place *during* design presentations. Like Schubert, I am also interested in the human and non-human interactions, for which the resulting video recording forms the main representation for study of what is going on during design presentations. Like Schubert did, I repeatedly viewed the video recordings, which allowed me access into minute interactions that may not have been visible to either the presenter or audience. Also in regards to my scope and focus, a close scrutiny of the video recordings formed the main point of reference in analysis and in representing the analysis within this thesis. I also included methods such as participant observation and collection and analysis of various documents. However, I did not follow Schubert's suggestion that the video recordings themselves may function as a medium for reflection to be used in participant interviewing, although a clear description of such methods cannot be made out from the analytical narrative Schubert provides. I did not go as far as to discuss the videos with the presenters as a medium for reflection to gain more data on the subject. This was due to timing. By the time my video analysis was done, over a year had passed from the presentations and hence participant reflections would have had a highly post hoc character.

In contrast, the typical length of Schubert's example snippet does not span more than 30 – 90 seconds. Although his original corpus may span longer, his ethnomethodological scrutiny is limited to the interactional analysis of snippets of this length. Unfortunately, I am interested in design presentations from beginning to end. Practically, it would prove difficult and time consuming to meet the criteria of ethnomethodological interaction analytical scrutiny with such material, which span from at least fifteen minutes to half an hour. It is rare to find ethnomethodologically informed interaction analytical video studies that illustrate samples longer than a couple of minutes, because it is hard enough to scrutinize a 30- to 90-second snippet, let alone one that lasts half an hour.

Also, when one considers the interaction taking place in Schubert's example snippet, one can notice that it develops completely without talking. It is all about 'signals', 'swift gestures', 'slightest cues', 'a quick nod', 'swift hand movement', 'presenting the relevant instruments', 'arranging the instruments' and 'handing over the tube without letting it go'. It is all about prodding and nudging with minimal discourse. This may in fact have been Schubert's main reason for investigating OR in particular. This limitation allowed him to focus on the role of non-human reality in daily routines. Although I may expect to be looking at human and non-human interaction, a Schubert-like approach is unfortunately not practically possible for studying design presentations. Language, as I have pointed out in the previous chapter, plays a major role in the presentation of design. This points at the last aspect where Schubert's approach is significantly

¹⁷ In Schubert's case, he was indeed a stranger, unfamiliar with the specialized environment of 'the other' he stepped into. In doing so, he was making sense of what was going on, from a position characterized not just by a professional gap, but also by an analytical one. As he points out, his analytical background of ANT interests 'bestranged' him even more. In my case, however, the analyst is both practically and theoretically sensitive to what is going on in the design presentations. The analyst is himself a designer by background and has engaged in the development of theory in design for the last couple of years during this research. This is both a blessing and a curse in the grounded theory approach. On one hand, it holds obvious benefits, since as an analyst I possess intimate knowledge of the processes of design. On the other hand, such benefits need to be kept in check so that they do not interfere with the sampling of the data.

different from the present one. In this study I am handling what one could call ‘mixed data’: ‘One type is generated by visual observation, the other by telling some sort of “story” about an event’ (Jordan & Henderson 1995, p. 13). Other than the interactions that take place within the design presentation, I am also dealing with explicit narrative accounts (Sandelowski 1991) that ‘justify’ (Scott & Lyman 1968), ‘reconstruct’ (Jordan & Henderson 1995), and/or ‘explain and evaluate’ (McDonnell 1997; Liao & Person 2015) in a timely manner what happened in the design process preceding the presentation, or even what typically happens in a design process in regards to a profession at large (Carvalho et al. 2009). These verbal accounts need to be taken into consideration when studying a design presentation and the object of design it aims to convey. This discursive dimension in my methodology will be the topic of the next section in this chapter.

3.5 *How to deal with design talk?*

When it comes to the theoretical sampling of language use in design presentations, Fleming’s study on ‘design talk’ is a good example to learn from. Fleming’s study concerns how student designers construct the object in studio conversations. For this, Fleming combines a framework of rhetoric with a grounded theory approach to understanding speech forms and their rhetorical effects within design (Fleming 1997; Fleming 1998).¹⁸

At the outset, Fleming’s analytical focus could be understood to stand in complete opposition to Schubert’s. Whereas Schubert’s study emphasized the mobilization of the material and built environment, Fleming’s study emphasizes the mobilization of language in design presentations.¹⁹ In this regard, we could consider Fleming’s theoretical sensitivity for ‘design talk’ on par with Schubert’s special interest in ANT – hence, resulting in a research project that is determined by an interest in words with regards to a specific design.

I will use Fleming’s study to further illustrate how an analytical focus can be beneficially integrated into a grounded theory approach and how it lends itself for further discovery of theory. Since his work stands so close to mine, understanding Fleming’s work at a methodological level allows me to illustrate some of the more subtle procedures of a grounded theory by example, whilst using this moment to reflect on my own distinct combination of rhetorical analysis and a grounded theory approach.

3.5.1 *More than words*

In terms of a grounded theory approach, one may summarize Fleming’s study as follows: ‘*Make comparisons among an array (of acts and social structures) characteristic of a single case, primarily to generate theory.*’ In his work one can note a development of theoretical sensitivity for the design-specific rhetorical means that pertain to a deep relationship between words and things in design talk. For Fleming, language use in design is one of the main ways of describing a design, its development, and the degree of professionalism, where the field has its own set of idiosyncrasies in the use of language.

‘A rhetoric of design, then, is one interested in the particular but recognizable arguments of design practice.’

(FLEMING 1997, p. 58)

To this end, Fleming analyzes a number of design crits within a graphic design project. The following snippet is taken from ‘Learning to Link Artifact and Value: The Arguments of Student Designers’ (Fleming 1997). In this transcript, design students are giving a reasoned argument about their typographic choices.

‘The typography needs to be a consistent representation of the Jewish Community Center. The type is what conveys information to the public so it needs to be able to be read easily.’

¹⁸ Fleming explicitly mentions that he employed an analytical method that resembles a grounded theory approach (Fleming 1997).

¹⁹ Fleming’s set of papers, put forward here, is obviously different from Schubert’s paper. It is different in terms of substantive field; and more importantly, in terms of format and aim. Whereas Schubert’s paper was aimed at a methodological reflection specifically, explicating a particular methodology based on video analysis and procedure typical to a grounded theory approach, Fleming’s set of papers aimed at developing substantive theory, explicating a particular theory to the field of design. Since Fleming is less explicit in regards to methodology, but does mention the use of video recordings and a grounded theory approach, I discuss a set of three papers in understanding his distinct methodological line of reasoning. These three papers (Fleming 1996, 1997, 1998) were published within his dissertation and can be considered consistent enough in terms of the indications of this distinct methodological line of reasoning.

Consistency of use of the correct typefaces will allow the reader to access the information quickly. With this in mind, two typefaces were chosen.

The Helvetica family is used for large publications with a lot of information and text to be read. Helvetica Light allows the usage of small print, allowing more copy to be read with ease. Helvetica Oblique differentiates information within text that needs to be pointed out, without interrupting the flow of the text. Helvetica Bold is used mainly for titles of text.

The second typeface is Garamond. This type was chosen for its readability and elegance. Garamond can be used for text or title. Garamond Italic has a flowing quality that works well for titles that need a fancy look. Garamond Semibold is good for emphasis of titles in publications.'

(FLEMING 1997, P. 74)

What these extracts show is that there is room for verbal argument in design. Designers need to advance verbal reasons for their proposals. These reasons need to be aligned with the 'good' and the 'useful', and the reasoning proceeds in a verbal manner. In addition, such verbal alignment needs to be addressed to a particular audience in a particular situation. The proposals are made 'reasonable' (Fleming 1997, p. 62). A connection between form and purpose becomes apparent in talk, and the artefact continues as a discursive phenomenon, as something that is constituted through language.

Now, whatever this may mean, important for us here is Fleming's discovery that the study of words allows one to gain access into aspects of the artefact, without really taking the actual artefact itself into account at all. The methodological relevance to present study is that, in regards to the design, I can ground the study of design talk in terms of index and deictic nouns.

However, this limitation to language alone comes at a price. In reading his extracts, one may feel the methodological constraint imposed by this strict linguistic framework on the data. This may raise curiosity about the concrete designed artefact that represents all these different typographies. Fleming picks up on this methodological constraint in terms of the problems it imposes in regards to rhetorical norms. Based on a strict linguistic framework, he cannot make out what is going on, not even (or especially not) on rhetorical grounds.

'She explicitly associates her choices with the JCC's presumed interest in readable and elegant typography. She claims, among other things, that Helvetica Light is good (purposeful, effective, desirable) because it allows large amounts of copy to be put legibly in a small space. And Garamond is good because it is readable and elegant ... But there is a problem here. Although we have what appear to be plausible solution candidates for the design problem at hand, and although those candidates are associated with a relevant social purpose, the connection between means and end here is quite porous. There is no guarantee that other means couldn't also be associated with those ends, couldn't in fact, be superior to the means proposed... In other words, (she) has not adequately considered for her client, through shared discourse, alternative solutions to the problem, tested those alternatives against explicit criteria, and proposed for use the best one(s).'

(FLEMING 1997, P. 75, ITALICS IN ORIGINAL)

As one can note from the snippet and his description of it, Fleming's interest is limited to the words used and the different forms of verbal argumentation in explicating particular value. In addition to Fleming's interest, we may ask: 'Is a value purely linguistic?'²⁰ Or are values, in this case, made up of a combination of a product (e.g. 'large amounts of copy' and 'a small space'), its strategy (e.g. 'purposeful, effective, desirable' and 'readable and elegant'), and 'the profession' (e.g. 'understanding', 'presumed interests', 'plausible solutions' and 'relevant social purpose').²¹ These are questions of value in design that do not seem to be easily answered by strict study of words alone.²² We need

② Although Schubert's study went about without any form of talking, I cannot help thinking about how the participants in that study would have argued for a particular treatment for a particular part of the body? Would that only include words? If not, does that then not count as an argument?

② This is not meant as a 'better' categorization, but an alternative categorization that, admittedly, fits 'better' for the purpose of my own project, and happens to be informed by prior theory as well.

② Fleming is interested in 'design talk'. That is, the linguistic forms in design talk. This is not the same as the study of utterances within ethnomethodology, where one typically looks at the intersubjective sequential production of utterances (or in Schubert's case bodily movements and the mobilization of artefacts) and how they are organized, such as in adjacency pairs, or turn-taking.

to take into account the design, its design strategy and the design profession in order to be able to get a reasonable grasp on what it is exactly that they are talking about – or in other words, we need to take into account its *design-specific context* (Oak 2000; Oak 2006; Oak 2009). Indeed, it is methodologically relevant for my study that these are the idiosyncrasies that pertain to particular design-specific rhetorical means that extend beyond words alone. Fleming notes:

‘The language of design is often highly indexical, so intimately connected to the context of its production that it can be removed from that context only by rendering it meaningless.’

(FLEMING 1998, P. 47)

The imposition of a strict rhetorical framework on the context of design poses a methodological problem for the study of a design presentation, because such a strict framework has no way of accounting sensibly for the artefact.²³ An attempt to follow such a strict framework may simply stall in the face of a ‘simple’ problem, namely, that a design presentation typically answers to, essentially, a socio-material question and hence, essentially, extends further than just talk. Design talk pertains to both verbal rhetoric and some kind of visual form. As Fleming’s ‘object’ is limited to the study of the words, apart from the references found in the words, the concrete artefact is analytically bracketed out. Hence, Fleming remains puzzled by design (and the picture, for that matter).

‘How is it, then, that the student’s work moved forward at all?’

(FLEMING 1997, P. 75)

In terms of a grounded theory approach, however, one could consider his theoretical work on learning to link artefact and value as indications of potential categories and hypotheses that are grounded in the ‘salient patterns’ that emerged from that data. One may consider his bewilderment to how (student) designers can manage without proper argumentation skills, as tentative variables in regards to a set of emergent hypotheses within his developing theory on design talk. Indeed, it could be said that, where previously Fleming was puzzled by the picture (Fleming 1996), in his article ‘Learning to link artifact and value’ (Fleming 1997), it is Fleming rather than the students he describes who is learning to link artefact and value.

This goes to show the kind of reflexive production of emergent questions and ideas that is typical of a grounded theory approach. Accordingly, these questions and ideas need to be ‘theoretically sorted out’ (Glaser 1978, p. 116). The ‘sorting out’ answers a key grounded theory process of ‘integrative fit’, which is the analyst’s problem, not that of the world he is trying to understand (Glaser 1978, p. 123):

‘All ideas must fit in somewhere in the outline, or the integration must be changed or modified. This basic rule is unwavering. If not used, the analyst will “break out” of the theory too soon, and necessary ideas and relations will not be included. This rule is based on the assumption that social organization of the world is integrated and the job of the grounded theorist is to discover it. If he cannot discover this integration of the empirical world it is his problem, not the world’s, so he must resort and reintegrate his concepts to fit better.’

(GLASER 1978, P. 123, EMPHASIS IN ORIGINAL)

So, it is important to note here that in terms of my grounded theory approach, Fleming’s work is open-ended, ethnographically significant, and gives a tentative direction. It is methodologically relevant for my study that he takes the study of design talk beyond the use of formal language alone and engages in a broader inquiry into the design-specific rhetorical means used, in reference to a design, a design strategy and the design profession in general.

☞ I would assume that the participants managed to account for the artefact sensibly, one way or the other, since the artefact may be assumed to have been present during the presentation.

Fleming catches on to this and in his following paper discusses the product materiality and how specific materiality becomes through design talk.

‘Unfortunately, thinking of design in practical terms is very difficult to do. The end products of design are usually material entities ... which assert themselves in fairly obdurate ways. As with the results of any productive activity, these artifacts can seem impenetrable once they are solidified and endorsed; it is only by attending to the situated action through which they are constructed that this solidification and endorsement can be discerned in all of its mundaneness.’

(FLEMING 1998, P. 41)

‘End products of design’ have now firmly become part of his inquiry. In terms of a grounded theory approach, this is good news because the integration of a material dimension is bound to give Fleming’s theory of design talk conceptual density.²⁴ The theoretical sorting of new ideas has been profitable in forcing ‘the nitty-gritty of making theoretically discrete discriminations as to where each idea fits in the emerging theory’ (Glaser 1978, p. 118). This is typical to a productive discovery. Indeed, for Fleming, it may seem he has discovered new grounds, since his emphasis seems to have shifted to what is now ‘the practice of design’, ‘its mobilization in linguistic and pictorial representations’ and ‘design as a kind of situated action’.

Fleming identifies two methodological aspects that are important: 1) the twin accounting of both the mobilization of language and objects and 2) their reciprocal, mutually constitutive relationship.

‘To understand the role of language in such activity, we need to see “word” and “object” in a reciprocal, mutually constitutive relationship. From such a perspective, language functions to suggest, establish, modify, and regulate material objects. At the same time, those objects enable and constrain the language used to reference and manipulate them.’

(FLEMING 1998, P. 45)

One can clearly note that Fleming is opening up methodologically to account for the object, yet retains his focus on the linguistic aspects of that object. Fleming is ready to integrate the material dimension into his theory of design talk, but only to the extent it is necessary for him to gain traction with respect to the meaning of the words we hear. In a way that is methodologically relevant for my study, Fleming intends to take the ‘material’ object into account, where words seem to fall short of making sense by themselves – yet, contrary to what I intend to do, he stays clear of discussing the material object directly. To give an example of this delicate treatment, see the following snippet.

(5) [20.268-298] [Mar 16]

D4: This, this is, um, the children, and this bar here and this bar here represent the color for the audience ((pointing with her pencil)). And I’ve broken it down into classes, activities, and services. Under classes would be the physical fitness, Judaic arts, and different other departments that have classes. But we were concerned with breaking it down into classes, activities, and services. Um, what I did was I used the five-column grid, and I gave them, I guess, six or so lines for the text -<.> and then I’m using a rule to call out the days and the time, and then after that I was using the date, the i.d. number on, uh, cost, um, I’ve always been using the last column. The last like, one column or last two columns for special events or special activities that are going on. Um, like in junior high ((pulling out another page and pointing)) dances or special trips, um ((pointing with pencil)), um, on all the layouts would always be the same, and that what would change would be the color of the audience being here and the bar, and then the classes and like the subsections of classes, um.

Following similar studies conducted by Schon 1983 (‘a conversation with the materials of a situation’), Forester 1989 (‘making sense together’) and Cuff 1991 (‘emergent’ and ‘a series of understandings modified by new information and opinions’), his focus is now on the ‘conversation’ that is taking place, both in word and thing.

Figure 3.2: Copy of a transcript that shows the range of relationships between language and object, taken from Fleming (1998), ‘Design Talk: Constructing the Object in Studio Conversations.’

From this snippet one can note Fleming's discovery of a range of relationships between language and object. One can note the language used. One can note the deictic nouns in reference to the object. One can note gesture and hand movement to communicate meaning. In regards to this range, he discovers that 'sometimes language seemed to dominate the material world; sometimes the material world seemed to dominate language; and sometimes the two seemed to be in rough parity' (Fleming 1998, p. 45). This observation of range, he continues, can be represented by a continuum divided into three sections: indexing, constituting and elaborating. Together, these three sections sort out into a typology (a grounded theory) of design talk that captures the design-specific rhetorical means to engage in design talk.

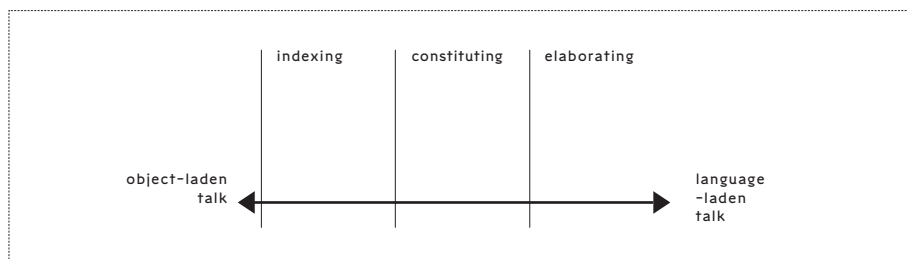


Figure 3.3: A continuum of design talk, taken from Fleming (1998) 'Design Talk: Constructing the Object in Studio Conversations'.

'Utterances grouped along the "indexing" side of the continuum participate in the invention of what I call object-laden talk. Here, the object leads and language follows ... Utterances grouped along the "elaborating" side of the continuum, meanwhile, participate in the invention of what I call language-laden objects ... Here language leads and the object follows ... "Constitutions" are midway between indexing and elaborating. They are in many ways the key linguistic events in design; they establish the object as a novel intervention in the physical world, announcing it through assertions of agency, action, and form ... It imbues the object with personal, modal, and topical force.'

(FLEMING 1998, P. 46, EMPHASIS IN ORIGINAL)

The object is now, to some degree, integrated into his theory of design talk.²⁵ Paradoxically, however, rather than accounting for the material object, Fleming seems to be considering the utterances as substituting for 'objects' within the design meeting, which is methodologically relevant for my study. Language is now considered as an 'object' on par with the actual material object. This is warranted, he says, because:

'In such instances, language no longer serves ... in an occasional capacity, merely to guide another's eyes across an object or to provide a temporary label for it. Language now takes on an explicit designing function, helping to actively constitute the work in rhetorically consequential ways. Sometimes, in fact, language is the artifact, at least in those instances when the material object cannot function to propagate itself across space and time, or when there is not even a material representation on the table yet. In these cases, the designer needs a verbal plan for producing future artifacts. But even when a sketch or model is on the table, language is needed to give the object status as an accessible, stable thing.'

(FLEMING 1998, P. 49, EMPHASIS IN ORIGINAL)

This may be so, but in his case, and in mine, there is 'a material representation on the table', which is then addressed with language. There is reason to believe that it is the permanent presence of a visual form that allows both students and the professor to assign and elaborate particular values. How, then, does this happen? His specifying conception of 'a verbal plan' is significant here, as well as analytically relevant. The more

☞ When I consider Fleming's accounts chronologically, I can note a particular methodological development in which the artefact gains an increasingly important role.

general ‘designing function’ that Fleming assigns to language becomes specified to and lodged in ‘a verbal plan’. Rhetorical or not, a concrete verbal plan is needed in ‘those instances when the material object cannot function to propagate itself across space and time’. And this, as we shall see, is exactly the case when studying the presentation of interaction and service designs, where the object of design is subject to heterogeneity, distributedness and dynamic circumstances. Especially under these circumstances some form of a verbal plan is needed, in addition to the visual form, in order ‘to give the object status as an accessible, stable thing’. From this follows that, analytically, I looked for both a verbal plan and a visual form, in order to locate the object of design within the design presentation. This inquiry was then extended to the investigation of how the representations of both a verbal plan and a visual form differed depending on the object of design in question, whether this is an interaction design, a service design or a product design. This is what I pursue in chapters 4, 5, 6, and 7.

3.6 *Sampling of design presentations*

This study does not use an ethnomethodological approach, nor is it strictly rhetorical. However, both Schubert's and Fleming's studies carry points that are of methodologically interest in my study of design presentations. In this section, I will elaborate on my research strategy in answering to this interest, whilst taking into account that this interest has been given special treatment for being particularly relevant in formulating emergent hypotheses in the study of design presentation.

My intention is to study presentations of more-or-less finalized designs with video recordings as principal data and video analysis as the principal method, and to do so following a grounded theory approach. The empirical scope is meant to be practical and substantive enough to gain analytical focus in the field of design presentations. It covers the study of: 1) a design presentation as a whole, as a singular narrative object of significance, 2) the different design-specific means (verbal/visual) that are employed within this whole, and 3) the relationship between the different means in regards to conveying an object of design.

The empirical scope of my study is limited to public design presentations. This means that these presentations do pertain to an audience, but as participants in the exchange the audience members remain largely passive. Although I can still speak of a performance that develops vis-à-vis the audience, what Fleming refers to as ‘conversation’ is suspended or at best ‘delayed’ until after the whole presentation has been given in one continuous instance. I am not looking at multiple people performing a story together; I am looking at one person mainly, performing his/her story. Even in the cases of student groups, it is one person at the time presenting the story. This indicates a particular type of interaction between the speaker and the audience, where the audience plays a role, in so far as it has a passive effect on the speaker, rather than an active one. At the same time, it is exactly this key aspect of the empirical material that allows me to focus on the phenomenon of interest, not as a story that is under development, but as a more or less finished story, and how it is conveyed in a monologue fashion.

The juxtaposition of Fleming's study with Schubert's sensitizes a methodological resource in terms of *continuity*. In Schubert's description there is a sense of continuity in how the interaction develops. From the description we can recognize fluidity in how the context moves along with the interaction under varying circumstances – we know exactly where we are in the interaction. In Schubert's unit of analysis, it is the persistence of the material environment that allows him to account for continuity in the subtle changes that take place within it, however, in less than two minute events. In Fleming's case, the description does not give a sense of continuity. The context comes across as fragmented throughout the description. Excerpts are included, but without taking into account their relationship to the other excerpts. Within Fleming's exposition, one never knows where one is exactly. Keeping an eye on continuity may have been difficult considering the span

of Fleming's unit of analysis, which is much longer than Schubert's, typically from 30 to 60 minutes. Regardless of the different purposes of the respective studies, however, and their different units of analysis, it is good to note that in regards to my case, in spite of the length of my unit of analysis, this aspect of continuity remains an important methodological resource for analyzing design presentations. Furthermore, I aim to retain continuity in both the material environment and the verbal elaboration within the set unit of analysis. In regards to this, I need to account for both the details present in the material changes in the environment, and the language used, while handling sample sizes that typically last for 20 to 30 minutes of audio/video.

Video samples could potentially include any given design presentation as a unit of a presentation in which any given design is being presented in a public fashion to a wider audience. However, under the trending circumstances described in Chapter 1, the focus of this study is on a particular design presentation where the object of design is heterogeneous, distributed and dynamic. The type of design presentation of interest is one that pertains to an object that is not necessarily available in the same room as the presentation (as will be discussed in chapters 4,6 and 7) and which cannot be addressed in the same way as one would with a discrete product design (as will be discussed in chapter 5).

3.7 Strategy for theoretical sampling of a design presentation

The main corpus of this study consists of 12 video recordings. Amongst them are six final student presentations and five professional presentations. Also belonging to this corpus are 11 PowerPoint decks used during the presentations. These student and professional design presentations were selected for three basic reasons. First, they all present either a service design or an interaction design. Second, the design in question was expected to be in a more or less finished state. Third, the presentations were given to the general public and had a maximum length of 30 minutes. Both the object of design and the act of presenting it are, therefore, explicitly available for study. The 12th video recording did not contain a PowerPoint deck but a physical product. The 12th video recording shows the presentation of a Super Chamois, a product that consists of a discrete object. This presentation was selected for the basic reason that it contained a concrete hand-sized object of design that can provide a counterweight to the kind of object of design presented in the student and professional design presentations.

Sensitivity to the field was further developed with the study of secondary materials in support of analyzing the video contents. The role of these secondary materials was to provide a background for the main analytical activity that was directed at the video recordings. These secondary materials are addressed within the analysis only to the extent that the empirical scope of the video recordings allowed for. The collection of secondary materials became more focused as the research progressed. To be clear, like with Schubert (2012), both empirical scope and analytical focus were predominantly directed by the video recordings, not the secondary materials.

The first set of six video recordings of final student presentations were collected from an MA-level Industrial and Strategic Design course given at the Aalto University, School of Art, Design and Architecture. The course was organized as part of the 2010 Helsinki World Design Capital (HWDC) event (Keinonen et al. 2013) and pertained to the design of services for psychiatric care in the city of Helsinki (Liao 2013). These were public presentations given to a general audience attending the HWDC event. These presentations were promoted through the university's appropriate channels dedicated to the HWDC event. On the outset, the project was organized such that it was open for research purposes. The students were aware of this and research in regards to the project has already been published in the book 'Designing for Wellbeing' (Keinonen et al. 2013). In addition, the students were informed in advance that the presentations would be recorded. The students also signed an IPR agreement in advance of the project. Since I am based in an educational environment, I have privileged access to the student data, which

could be engaged with in sufficient intensity and duration. It provided material that is both familiar and relevant to design education.

In addition to PowerPoint decks, I also collected the final reports that documented the student design projects. These documents proved of practical value in analyzing the visuals that were created for the purpose of the presentations, as hardcopies of these were regularly used next to the analysis of the video recording. In regards to this first set of data, my analysis was further supported by secondary data in the following forms. Being part of the audience, I made as many notes as possible during these presentations on relevant aspects of the events that would not be necessarily captured on the video recording. As an assistant in the module, I also made notes about the students' progress during weekly face-to-face tutorials with the responsible professor of the module. This gave me additional insight surrounding the students' design processes, such as the problems they faced.

General insight into the projects was further enhanced by following the group developments through weekly blog posts, which were also publicly available. Unstructured observation in studio space and hallway conversations with students helped in gaining a deeper understanding of the different projects. The teams undoubtedly experienced group dynamics idiosyncratic to their own projects (free riders, clashes of opinions, etc.), and a variety of fitness levels during the day of presentation (nervousness, tiredness, lack of sleep, etc.). However, as I will elaborate, this fact should not interfere with the goals of this study.

At the end of the module, I also made notes on a teaching staff meeting on evaluation and student grading. I also did a follow-up study of one student project, which was exhibited in the Design Museum during the HWDC event and submitted as the city of Helsinki entry to a 'replicable innovation developed by cities' project to the 'Mayor's Challenge', part of Bloomberg's Government Innovation Program.²⁶ This follow-up study was limited to the additional PR material that became available from this project and the extra effort committed to representing this project within the 'Mayor's Challenge'. This prolonged engagement with the students' work provided me with secondary materials to 'triangulate' (Denzin 2009; Flick 2002; Denzin & Lincoln 2011) my understanding of their processes of design in more depth and to give me more background to the video recordings during analysis. These secondary materials will be addressed only in so far as the empirical scope of the video recordings allows.

This initial data set fits the typical description of study because of the module's topical bearing, its collaborators and the chosen directions within the student projects. Although the module was not explicitly framed as focusing on service design, all of the projects concerned the design of a service. The student projects engaged with wider societal issues concerning wellbeing (Liao & Person 2012) and happened in collaboration with public organizations for health and psychiatric care, including urban planning and health care (Keinonen et al. 2013). Implicit to these modules was the discussion of the social responsibility of design practice and how to organize design activity differently in the service of 'social need' (V. Margolin & S. Margolin 2002). The students were simultaneously engaged with 'immediate and remote design' (Keinonen 2009b): immediate, as in 'approaching users and specific local practices'; and remote, as in 'distancing from them in order to shift to more generic questions about creating universal solutions or preconditions for design' (Keinonen 2009b, p. 69). These projects showcased that within such a context of design, the design presentation of a singular concrete object of design is no longer the rule. If they did present a concrete object, these objects principally served on a conceptual, strategic and organizational level, rather than on the level of practical and immediate use. They show the kind of design presentation where the object of design is heterogeneous, distributed and dynamic, and indicated 'those instances when the material object cannot function to propagate itself across space and time' (Fleming 1998, p. 49) and required extensive verbal elaboration in order to explain them.

Sampling of data (video recordings, documents and fieldwork observations) for

comparison purposes sought to achieve maximum coverage. Initially, I had no clear idea of what my interests were and which direction to develop the empirical scope and analytical focus. I allowed these to emerge from the data, with the video recordings as the main data source. This first set also served to develop my analytical method that combines video analysis with a grounded theory approach. The analysis of this first set resulted in an initial framework of storied design and put forth a number of questions that allowed for further focus and sampling. An important empirical value, set in motion by this initial set, is the degree of homogeneousness in regards to the presentations being recorded live and continuously without excessive editing.

The second set of five video recordings were taken at the first Service Design Achievement Award ceremony that took place in Helsinki in 2013. This award ceremony was organized by the Aalto University and consisted of five presentations from nominated service design agencies within the Helsinki area. These are public presentations that were given to a general audience. This event was promoted through various channels, including social media. The video recordings are publicly available on their web channel. In addition to the video recordings, the PowerPoint decks were also available on their webpage. Analysis was further supported by secondary material that consisted of notes taken at one of the presentation events (including the reception and other ceremonies), background material on the Service Design Achievement Award ceremony itself, background on the five companies nominated, background of the speakers and an interview with the main organizer of the awards ceremony that year.

This second data set provided material, which can be compared with the students' material, because of the similarity in presentation length and topical bearing. These presentations presented various service designs, some of which could also be considered as interaction designs. They cover a decent degree of similarity in terms of the objects of design being heterogeneous, distributed and subject to dynamic circumstances. This makes the empirical value between the first two data sets both transferable and fitting (Lincoln & Guba 1985).

Moreover, this awards ceremony is expected to draw out the state of the art that service design agencies within the Helsinki area have to offer. One may assume that the acquisition of such awards is significant in the development of the agencies' portfolios. Such awards indicate exceptional achievement (Cross 2004) and allow for public mention and exposure (Oak 2006). Within this context, one may also expect an emphasis on the design methods within the presentations, since the audience would include fellow designers and potential clients as well. For this reason, the data concerning the professionals provides material that contains design presentation practices that students are most likely to emulate and is of immediate practical value in the education of future designers.

With this set, it was not possible to document the design processes first hand, as I did with the students' work. The coverage of the data was less extensive. However, since I had delimited my empirical scope and analytical focus, the sampling could proceed along an 'inductive-deductive phasing of theoretical sampling' (Glaser 1978, p. 37). My initial framework of storied design allowed me to be more focused in terms of what to collect. It was quite clear at this point that I was mostly interested in collecting the audio/video recordings and the PowerPoint decks. Secondary material was engaged with where opportune and for use as background to the recordings. This data set allowed me to consolidate and enrich my initial framework in regards to the design-specific means used to convey the object of storied design within design presentations.

Both the student set and the professional set represent the kind of public context of presentation where immediate and active interaction with the audience is minimal. Although the presentations can be regarded as essentially audience facing, the direct interaction that takes place during the presentation is limited. The context of such presentations also typically requires the upfront preparation of some form of a script and a deck of PowerPoint slides. The script and the sequence of slides typically give order

to how the presentation is to proceed. This limits the interactive order further. None of the videos studied illustrate a consistent enough sequence of interaction between the presenter and the audience. These factors allowed me to bracket out the role of the audience and to focus on the visible and immediate interactions that take place on stage, as in between the presenter and the object of design.

The third set consists of one audio/video recording of a professional pitchman, pitching the Super Chamois, an infomercial product, in a market hall. This video was taken from YouTube. In addition, I briefly analyzed a number of videos from YouTube that documented different pitchmen pitching the Super Chamois (or the ShamWow, a very similar product). However, due to obvious similarities in content, it was not necessary for me to analyze these additional videos as closely as the one I selected. The variety in the sample did not warrant closer scrutiny, since the one I selected proved to be of saturating quality. Bluntly put, they were all the same. They mostly exhibited the same themes, the same stories, even the same order in which the stories were told. The one I selected provided sufficient material for the further development of the framework. Therefore, I categorize these additional videos as secondary resource material. Also amongst the secondary resource material are various descriptions of the product itself (e.g. from Wikipedia) and a number of amateur audio/video recordings in the form of user reviews of the product that are available in large numbers on YouTube, as well as the often extensive comments posted in reaction to these videos on YouTube. These are secondary resource materials because they supported me in the close analysis of the one I selected. For instance, these amateur productions confirmed the narrative themes that are addressed in the selected pitch as the dominant narrative themes; even the sequence in which the themes are addressed in the presentation can be found to be similar amongst many, if not most, video presentations of the Super Chamois.

Theoretically, this video of a clear and obvious demonstration of a singular concrete object of design proved useful as a counterweight to the design presentations found in the student and professional sets of design objects that, per se, cannot be similarly *demonstrated*. Again, proceeding along an ‘inductive-deductive phasing of theoretical sampling’ (Glaser 1978, p. 37), this sample was theoretically significant, because it pertains to an object of design that is not ‘heterogeneous’, ‘distributed’ or ‘subject to dynamic circumstances’. It is of hand-sized dimensions, contained within a discrete object and practically always absorbs liquids when in contact with them, regardless of the circumstances. This allows me to analyze the type of object in relation to a different kind of design presentation.

Coverage of this data set was also not as extensive as the student material, since I had developed my interest iteratively through my previous framework on storied design, and theoretical relevance was relatively circumscribed in regards to what properties I was aiming to compare. Starting with the students' set, these three sets were then sampled repeatedly and in different order for different theoretical interests, establishing empirical scope and analytical focus as I cycled and recycled through the three sets in the course of a nearly two year analysis process. The table below summarizes the data set and illustrates this decrease in sampling coverage (Table 3.1).²⁷

☞ The breadth of sampling delimits the theory's boundary of applicability. However, this boundary may also help in broadening the theory by systematically including data from other substantive areas pertaining to different aspects altogether. The inclusion of such data typically aims to increase the theory's generality and explanatory power.

OBJECT OF DESIGN	DATA	TYPE
1 STUDENT SERVICE DESIGN	Primary	- Audio/video recording (6) - PowerPoint deck (6) - Project report (6)
	Secondary	- Notes on participant observation during presentations - Notes on weekly tutorials - Weekly blog posts on projects - Unstructured observation in studios and hallway conversations - Notes on meetings on student grading - PR material on one specific student project nominated for further exhibition at WDC and Mayor's Challenge
2 PROFESSIONAL SERVICE DESIGN	Primary	- Audio/video recording (5) - PowerPoint deck (5)
	Secondary	- Notes on participant observation in one of the presentations - Source material on Service Design of the Year Award in Finland - Source material on company and presenter background - Interview with organizer of event
3 PROFESSIONAL PITCH OF CONCRETE PRODUCT	Primary	- Audio/video recording of product presentation (1)
	Secondary	- Miscellaneous audio/video recordings of product - Miscellaneous product descriptions - Amateur audio/video product reviews and comments

⊗ The camera had to be fitted with a wide-angle lens in order to capture the action from that close. Analysts of conversation customarily make use of 'fixed' cameras in order to study the intimate complexities of daily interaction systematically (Goodwin 2000, Knoblauch 2008, Heath et al. 2010). One benefit with a fixed camera is that one is able to conduct fieldwork on the side. For example, I could make notes of aspects of the event that would not be recorded on the video. Luff and Heath (2012) summarize some of the 'mundane' problems encountered when choosing camera placement and angle, and the consequences these have on the subsequent analysis. Their solution to most of the problems that occur in studies that utilize video – which turns out to be the preferred solution in many other studies – is that of the audio-enhanced stable 'mid-shot'. This refers to the recording of a set of two to three persons coordinating joint activity at an angle that is slightly higher than the eye-line of the participants under study. On page 37 (Heath et al. 2012), they describe some of the foundational conditioning aspects of collecting video data via cameras. The choice of camera placement and focus determines a great deal of what can be of research value. The degree of directing that is innate to video capture is considerable. Positioning, focus and the number of cameras; whether you use a 'roving' or 'fixed' camera; or how the recording sounds, all have impact on the data that is collected and the analysis that is allowed for. These decisions, some conscious, some unconscious, some seemingly trivial, inevitably reflect the broader analytical commitments one is bound to take into consideration when working with video.

Table 3.1: Summary of data sets, sampled according to the object of design, and illustration of decreasing sampling coverage in data type

The student design presentations that I collected took place in an auditorium. The presentational choreography and composition are relatively circumscribed to a limited space that is typically designed as a stage, from which the presentation addresses an opposite facing audience. Contrary to Schubert, I chose to work with a single fixed camera position.²⁸ Positioning the camera as an audience member suffices to capture the staged interaction of interest between the presenter and the object of design. Furthermore, a wide-angle lens was used since I also needed to capture the projector screen, which is typically very large in such public presentations (Figure 3.4).



Figure 3.4: This design presentation took place in an auditorium where the stage is at ground level and the audience is seated on a slope, very much like in a cinema. I stationed one fixed camera right in the middle at the front row, quite close to the un-elevated stage (See arrow)

With a fixed camera I could position myself as an observer of the event. A fixed camera allowed me to record the presentation as a consistent view of a continuous stream of action taking place within a naturalistic setting. This arrangement allowed me to remain relatively unobtrusive, as I did not have to keep fidgeting or looking through the viewfinder. The unobtrusiveness of my presence was further enhanced by the design of the auditorium. All spotlights on the ceiling were directed at the stage. With the audience only half illuminated, my observing position did not quite catch the presenting students' attention. For that reason, the presence of the camera, and the students' reactions to it, may have had only a limited influence. That is to say that, whether the camera was there or not, it is safe to assume that these presentations would most likely have proceeded in a similar fashion as they did that day.²⁹

In regards to the professional service designers and the pitchman, I relied on video recordings that were made by others. These recordings included a minimum of editing. The recorded performance was kept intact, but the video contained occasional close-ups of facial expressions and gestures inserted into the video. I considered this to have a minimal influence for my purposes.

Sampling at this level was limited to what was recorded on the camera. So, there is the limitation of what is framed for analysis: the staged interaction that takes place during the presentation. By mainly relying on the analysis of these videos, I do not have consistent access to how the audience reacted to the presentation. I also do not have ready and profound access to the prior processes of, for instance, deck design and how the presentation deck were prepared. Hence, I have no clear view on what aspects influenced the 'making of' the presentation. That said, these aspects are not within the empirical scope and analytical focus of this study.

²⁸ In looking ahead, there is little empirical evidence that the camera position had transformed the ways in which the students presented their designs. There is equally limited reason to think that they prepared their presentation differently because of it. I did inform the students in advance that their presentations would be video recorded for later analysis. Mondada (2012) makes a point of collecting video within the framework of naturally occurring interactions. This is an attitude that respects a naturalistic orientation when studying everyday interaction. From this point of view, interactions are not orchestrated by the researcher.

In scrutinizing the video recordings, I underwent an analytical process similar to the one described by Schubert as repeated viewing, reframing, and re-evaluating the analytical gaze. I followed a general process of consecutive steps in handling the video data: first a preliminary review, followed by a substantive review, and finally an analytic review (Heath et al. 2010). A preliminary review aims at cataloguing some basic aspects of activities and events that are present in the recording. These typically refer to time stamps, naming participants, topic, etc. A substantive review is more focused on the initial analysis of data extracts or fragments, similar to what Jordan and Henderson (1995, p. 19) call ‘ethnographic chunks’. This step aims at finding further instances of events, tasks and phenomena, so as to enable comparison and to delineate aspects of how particular interactions are organized. An analytic review aims at refining one’s analysis. At this stage the data is typically reviewed repeatedly to find extracts, fragments or ethnographic chunks that appear to reflect similar characteristics. It is advised, however, not to overdo these stages of review, that is, not to ‘overdo’ (Heath et al. 2010) reviewing, sorting, cataloguing and categorization of the video data. The reason for doing this treatment of the data is to support analysis.³⁰

At times, watching a video recording without sound yields insights. Like in Schubert’s study, the lack of sound enhances one’s attention to visible action. Likewise one can watch the video time and again, each time with a focus on a different modality.³¹ In terms of a grounded theory approach, each modality, conceptually separated, may function as a different slice of data. As such, it can be any formation of data that offers a vantage point from which to understand the distinctive elements or nature of the entity in question. (Glaser & Strauss 1967, p. 65) Analyzing videos in this way can come across as a passive interview, where once the question is asked, a static but rich audio/visual answer is rolled out in a ‘virtually uninterrupted monologue’ (Polkinghorn 1988, p. 160) form, addressing the question, as well as what is not explicitly asked for, which allows for further questioning, followed by the roll out of the same static answer, and so on. This was done to the present study materials.

An important part of organizing the video data is to make content logs of the video material (Jordan & Henderson 1995, p. 5), in order to discover these identifiable ethnographic chunks. These chunks can be considered as slices of data as well, or even as a form of theoretical sampling, depending on the various questions and analytical angles a single chunk is approached from. It is important to note here that content logs are not transcripts of the complete video recording, but rough descriptions of the situations captured and perhaps labelled for particular analytical concepts. In my case, the form of the content logs changed as the research progressed. Depending on the emergent theory, each iteration captured greater detail, and incrementally included tighter transcriptions of speech, tone, gesture, facial expressions, etc. This flexibility in transcription allowed for a degree of effectiveness, which was in part diminished again by the number of times the transcriptions were reproduced in content logs with increasingly detailed coverage. The following extract shows an example snippet transcription that I included in the content logs. The example shows a particular notation in the transcriptions. The number at the beginning of a sentence indicates an utterance line. Slide events and gestures are indicated in between the square brackets. Images are included to show the gestures.

It is exactly this extraordinary detail found even within a few seconds of video, and the labour-intensive practicalities of handling video, that makes analyzing video difficult and cumbersome, such as handling the transcriptions of video. Doing transcriptions of video has been recognized as a problem in itself (Schnettler & Raab 2009). Transcription styles tend to differ depending on the preferences of the researcher or the phenomenon under study. Jordan and Henderson (1995) provide a summary of the different transcription styles available, when it comes to transcribing action observed on video. Despite the many ways this can be done, transcribing video remains a problem in regards to academic representation. Such snippets are typically so information-dense that a few seconds of video may easily result in pages of transcription. Here, the researcher must make a balanced decision.

³⁰ Although not explicitly mentioned, I can recognize glimpses of grounded theory procedures, adapted to video-based research. However, it helps here to note that Heath et al. (2010) are not conducting a grounded theory approach, because of their overriding commitment to the ethnomethodological project. This commitment advances concepts such as ‘sequence’, ‘sequentiality’ and ‘adjacency pairs’, something a grounded theorist would have a hard time living by, unless they appear to be relevant and emerge from the data as an emergent fit. In terms of a grounded theory approach, for Heath et al. (2010), these concepts become relevant a priori, because they are part and parcel of their chosen approach.

³¹ Luff and Heath (2012) make a strong case for this multifaceted action in real-time. They illustrate the study of this multifacetedness through multiple studies, systematically emphasizing one aspect after the other.

In my case I adopted a style of transcription applied earlier in design studies (Glock 2009). This style allows me to discuss the detail required, whilst being economical in page space. One can also note that not all of the screenshots are of immediate relevance for the analysis, but their inclusion does offer a better visual feel for the presentation.

TRANSCRIPT 3.1



Image 3.1.1

8 | [new slide (Image 3.1.1)]
 | But there we find that the communication between the health side
 and the third sector organizations wasn't working very well.

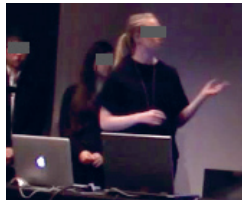


Image 3.1.2

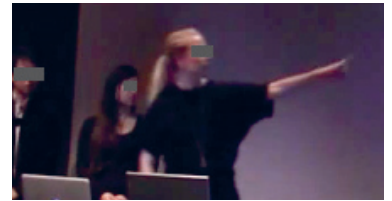


Image 3.1.3

9 | [Quick pointing at slide (Image 3.1.2)] | [Elaborate pointing---- (Image 3.1.3)]
 And this | is an image that one of our interviewees drew, | where you see the health system

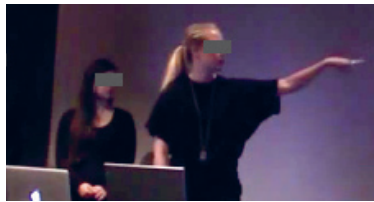


Image 3.1.4

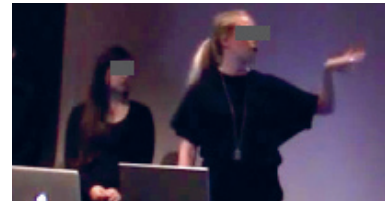


Image 3.1.5

| cont. in narrow circling motion finger (Image 3.1.4) | cont. in wider circling motion whole hand (Image 3.1.5)
 | in the middle, | and then the third sector organizations are

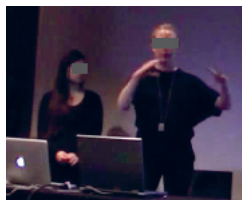


Image 3.1.6

| cont. in circling motion entire arm, second arm joins the motion (Image 3.1.6)]
 outside of it, | operating individually

The initial coding of the video material was *open*. The material was initially variously coded without taking into account too many of the theoretical concepts described in Chapter 2. In practical terms, the first question I encountered when sampling the design presentation video was how to select a sequence – that is, how do I know it forms a sequence in the first place. In terms of a grounded theory approach, this is where the process of coding starts. In dissecting the presentation into comparable sequences, I coded the different snippets as pertaining to ethnographic chunks. I will discuss a number of strategies to establish sequences here.

First, the presentation can be seen as a sequence of narratives, performed in a particular order within the presentation. For instance, in the snippet above, one can find a narrative about a particular situation of design. Both the specific narratives and the order in which the narratives are produced are analytically significant. With the availability of a determined object of design, there seems to be a clear beginning and an ending, as much as there seems to be a ‘sense of an ending’ (Kermode 2000) from the beginning. This ‘sense of an ending’, as embodied by the object of design, represents a methodological resource in analyzing the various narratives and how they connect with one another in relation to this ending. It is necessary to retain this narrative circularity that is innate to narrative production, in order to make sense of the overall narrative of the object of design as a specific ending (Sandelowski 1991). Methodologically, the principle of an object of design is typical to the construction of the design presentation, as much as it guided my analysis of the structure of it.

This strategy calls for a close scrutiny of those moments where one narrative shifts into the next. Concretely, these shifts could be identified by the changes that took place in the performance itself, such as changing the slide, which often indicates a topic change. Sometimes, there are words found on the slide that indicate a topic change; for instance, the footer may say ‘Introduction’ or ‘Methods’. Most of the time, the shifts also become obvious because the presenter announces them. In the case of multiple presenters, a shift in presenter could also indicate a topic change.

A second strategy that I employed was a narrative theme that is sensitized by a very general understanding of a design process, namely, that of problem and solution (Dorst & Cross 2001; Lloyd 2002). This strategy implied a clustering of the previously established sequences into these major chunks of problem- and solution-specific categories. As simple as this may sound, organizing the clusters was not straightforward due to the inherently complex relationship in the mutual co-constitution of a problem and its solution. However, a clear organization of the video material under these very general terms was neither its aim nor its result. Rather, its result was the emergent hypothesis as to whether one can pinpoint a moment within the presentation where these supposedly general terms of problem and solution shift from one to the other. Where then would it split?

Regardless of the categorization, a shift in terms needs to exist if we are to speak of two general terms that need to be narrated into one coherent narrative whole, such as in a design presentation. At this intersection one can typically locate a middle-part sequence where the described situation becomes abstracted for the purpose of portraying a direction of design. This is a middle-part sequence, because this is the place where the so-called problem and solution are matched in terms, hence creating a third category. So, in regards to the analysis of design presentations, locating these three categories becomes a procedure for comparison.

A third strategy concerns the object in the slide. One thing that becomes obvious is the difference the presence of a slide makes in the performance. Typically, there are various other objects that are presented before the arrival of the final representation of an object of design: the process objects (Bucciarelli 2002), such as diagrams, photographs, sketches, renderings, etc. These are also included as objects to which I could organize the video material.

A fourth strategy, closely following the third strategy, is based on the comparison between the sequences in which I can note these objects as present (Fleming 1998) and the type of interaction these objects result in. With some slides, the presenter would

mainly look into the audience while talking, whereas with others, the presenter would turn to the slide while pointing at the object in the slide, as well as talking. This distinction led to an organization of the data where I divided those sequences in which the presenter seems to mainly talk from those sequences where the presenter seems to be bodily engaged with the object present in the slide.

These four strategies provided methodological courses of action with the aim of comparison. This resulted in various theoretical directions in regards to the design presentations, such as the different kinds of narratives and the individual objects present in the slides, how particular narratives are given form with the object present in the slides, what objects could be identified that gained narrative importance within the presentation, the interplay that takes place between the objects and the presenter, and so on. These strategies allow me to account for the theoretical discovery of range as well as what to sample and compare next.

It is good to keep in mind that the purpose of the constant comparative method is to discover and generate theory systematically (Glaser & Strauss 1967, p. 102). This includes discovering the systematic strategies themselves as appropriate to the empirical scope, analytical focus and emergent theory. Note that these strategies, in fact, represent hypotheses, specified to the design presentations, which help me to organize my empirical material in order to achieve analytical focus and empirical scope (Glaser 1978, p. 62). That is, the strategies themselves emerged through the sampling of video as much as they informed the generation of theory. Furthermore, the relevance and fit of each strategy were constantly monitored through the process of constant comparison as well, as I repeatedly cycled and recycled through the three sets of video recordings.

3.10 *Development of content logs, a theoretical process*

Initially the process of creating content logs allowed me to create an affinity with the contents of the video, whilst sensitizing the contents with initial conceptualizations, arranged in a somewhat loose and, initially, fragmented manner. As the research progressed, the content logs became bigger and covered the content more closely in terms of the detail that was both verbally and visually present in the video. As research progressed, the content logs were also more densely integrated and structured with theoretical deliberations put forth through them, which in turn were developed further through a process of theoretical sampling and constant comparison.



TEAM 1
Project description: Collaborative information hub
Domain: Outpatient care
Object of design: Hub premises
Project results: Set of Scenarios



TEAM 2
Project description: Inpatient outpatient transfer via ticket
Domain: Outpatient care
Object of design: Transfer ticket
Project results: Prototype ticket



TEAM 3
Project description: Website shared between outpatient care professionals, patients and patient's family
Domain: Outpatient care
Object of design: Website and associated web applications
Project results: Prototype website



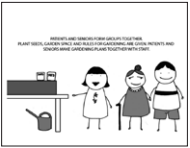
TEAM 4

Project description: Patient narrative recording system of in-patient care
 Domain: Inpatient care
 Object of design: Post-it note-like cards allowing easy record keeping
 Project results: Prototype cards



TEAM 5

Project description: Rehabilitation via cooking premise
 Domain: Outpatient care
 Object of design: Branded cooking premise
 Project results: 3D CAD rendering of space



TEAM 6

Project description: Indoor gardening space for patients and senior citizens to encourage social inclusion & rehabilitation
 Domain: Outpatient care
 Object of design: Indoor gardening premises
 Project results: Set of scenarios

Table 3.2: Overview of student projects and example of final project results

For instance, in the case of the student presentations (See Table 3.2 for an overview of student projects), I watched the video recordings of the student presentations and made a first version video content log to roughly describe the contents of the recordings. This first version was organized in terms of the PowerPoint slides used in the presentation. Each slide was represented as a single line in the log. Each line was given a time stamp and consisted of a short description of the slide and its accompanying verbal contents (Figure 3.5). This first version of the content log consisted of seven pages and about 200 lines, which I then printed out. This paper copy allowed me to read through the content log, add theoretical memos and organize the content in various categories. This was initially done by hand using post-it notes.

00:16:30	introduction of team members
00:16:40	Introduction of project name
00:16:52	--- SLIDE --- outline slide
00:17:13	--- SLIDE --- Research methodologies
00:17:17	--- SLIDE --- Picture 1: Interviews on phenomenon
00:17:31	--- SLIDE --- Picture 2: User visualization of phenomenon
00:17:43	--- SLIDE --- Picture 3: Student visualization of phenomenon
00:17:59	--- SLIDE --- Picture 4: Co-design workshop phenomenon
00:18:13	--- SLIDE --- Picture 5&6: Orientation in the phenomenon
00:18:28	First time mention of the problem
00:18:34	--- SLIDE --- Picture 7&8: Stakeholders

Figure 3.5: Example snippet from initial content log

In making this first version of the content log, I made comparisons between the different slides and narratives to identify the ethnographic chunks within a single presentation. With each additional presentation logged in this way, I also started to make comparisons between the different presentations. These comparisons resulted in an initial collection of theoretical memos that grew incrementally as I was comparing within a single presentation and increasingly started to make comparisons across the six presentations.

These memos stimulated the different analytical strategies described in section 3.9 and referred to structural elements of the presentation, such as ‘Introduction’, ‘Problem description’, or ‘Design concept’; or to the contents of the slide, such as ‘Title’, ‘Diagram’, ‘Photograph’, ‘Sketch’; or to the crude dynamic on stage, such as ‘stage choreography’, ‘change in presenter’; but also to specific elements that were more unique to the presentation in question and not necessarily overlapping with the other presentations. I also looked at the amount of time that was spent on respective categories in the presentation. This yielded in total about 60 codes and an initial 40 theoretical memos.

I then watched the video recordings again with the aim of comparing specific codes and particular memos with one another, where I increasingly focussed on making theoretical comparisons between the different objects presented in the slides within and across the different student presentations. For instance, I compared the drawings of the final design solutions across the different student projects (Figure 3.6). This yielded another 45 theoretical memos, which were documented in a second version of the content log. Many of these memos added density and variety to the previous codes and memos and developed into 16 main conceptual categories. These categories concerned concepts such as ‘Design method usage in narration’, ‘Diagramming design problems’, ‘Dynamic diagramming’, ‘Role-playing, scenarios and dramatic persuasion’, and ‘Interplay between presenter and the content of the slide’.

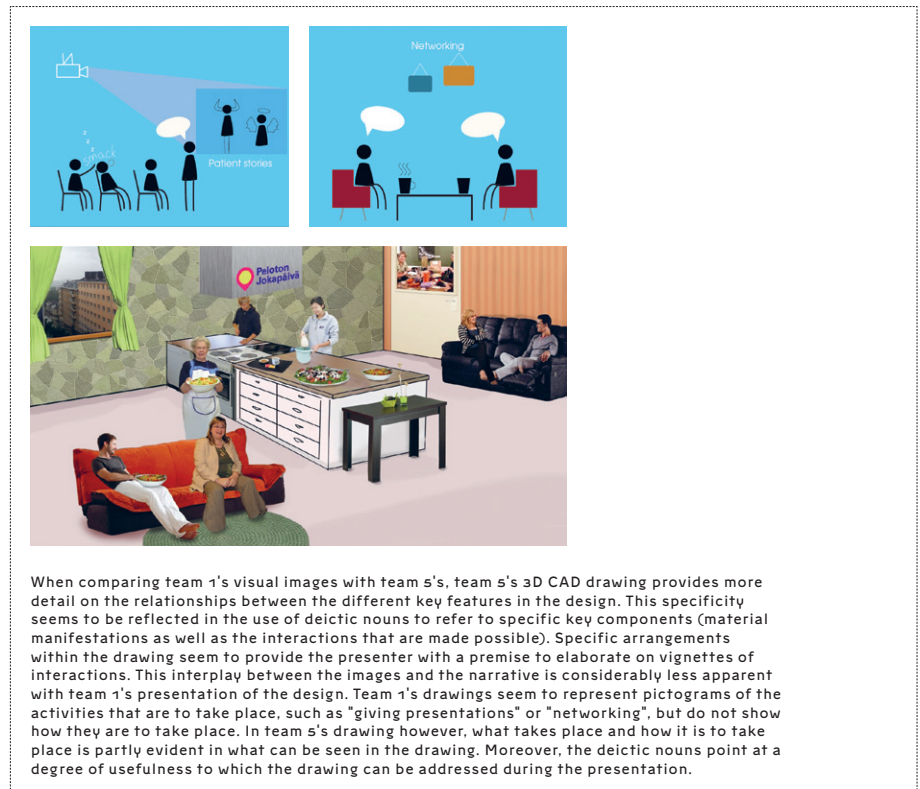


Figure 3.6: Example snippet from a theoretical memo comparing drawings of final designs that were used during the presentation by different teams. Top two images show a premise as visualized by team 1; the bottom image, a premise as visualized by team 5.

I then watched the video recordings again and made a third version of a content log that focused on three of the student projects. Three of the student presentations addressed the design of a singular object and three, the design of a premise. From this followed two categories for comparison based on the nature of their objects of design. Five of the projects predominantly concerned a design for outpatient care. One project predominantly concerned the design of an object for inpatient care. For this reason I bracketed this one presentation out from the following comparisons. From the remaining two presentations of a singular object, I chose the project that resulted in the most concrete outcome - a prototype of a transfer ticket. From the three presentations of a premise, I also chose the project that resulted in the most concrete outcome - a CAD rendering of a premise. In addition, from the three presentations of a premise, I also included the project that resulted in the least concrete outcome - a number of scenarios consisting of iconographic sketches.

This third version of the content log was more detailed. It included screenshots of gesture and choreographic movement, verbal transcription and markers on when the slides changed. I focused on the initial 16 main conceptual categories and compared the different kinds of project results in regards to the type of interaction between the objects presented in the slides and the presenter. Although the focus was on three of the presentations, comparisons constantly took place with regard to the other three presentations. These comparisons were described to a lesser extent, since no salient (contradictory) categories seemed to emerge from these comparisons. This resulted in an initial framework of storied design.

At this point, I collected additional videos of design presentations for the purpose of theoretical comparison: a video recording of a professional pitchman, pitching an artificial chamois leather, and a set of five video recordings of professional service designers (See table 3.3).

I continued making content logs and theoretical memos that built on the framework that was developed from the student material, but focussed on specific key questions that emerged through the development of the framework. In regards to the professional pitchman, I focused on making theoretical comparisons between the artificial chamois leather and the student service designs. The obvious concreteness of the artificial chamois leather provided a counterweight to the student service designs. This comparison allowed me to further develop key categories that concern the difference in the object of design between the artificial chamois leather and the student service designs, and how they are presented.

In regards to the professional designers, I focused on making further theoretical comparisons between their service design presentations and the presentation of the artificial chamois leather. In addition, I also compared how the professional designers presented their service designs as opposed to the students. From the 5 professional presentations two concerned the collaborative development of a service/digital strategy, two concerned the design of a website and one concerned the design of a premises. The two presentations that concerned the collaborative development of a service/digital strategy turned out to be of limited comparability. On the outset, the different nature in the objects of design in these two presentations seemed too different. They did not seem to fit in the emergent scope of my sampling strategy. One reason for this is that these two presentations did not clearly show some form of a final representation of a specific object of design, upon which my emergent analytical strategies relied. They did not allow a productive comparison within the emergent scope of this study. They did, however, provide additional comparative material on how design methods are presented within such contexts.

Initially, the comparison between the artificial chamois leather, the student service designs and the remaining 3 professional service designs allowed me to further develop key categories that concern a processual development during presentation and how this processual development differs between the presentation of the artificial chamois leather and the presentations of the service designs. I, then, further consolidated these key categories by making further comparisons using two of the professional presentations. Whereas the presentation concerning the design of a premises allowed me to illustrate

**PROFESSIONAL PITCHMAN**

Project description: Artificial chamois leather

Domain: Cleaning supplies

Object of design: Artificial chamois leather / Project results: Artificial chamois leather

**PROFESSIONAL DESIGNER 1**

Project description: Designing servicescapes for optimal healthcare experience

Domain: Healthcare / Object of design: Premise

**PROFESSIONAL DESIGNER 2**

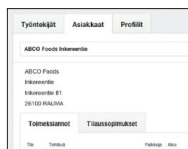
Project description: Service design as a tool for strategy creation

Domain: Automation / Object of design: Digital strategy outline

**PROFESSIONAL DESIGNER 3**

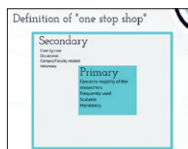
Project description: Live UX design in VLE Eurovision ambiance

Domain: Media / Object of design: Website

**PROFESSIONAL DESIGNER 4**

Project description: Extremely lean service design & development

Domain: Human resources / Object of design: Website

**PROFESSIONAL DESIGNER 5**

Project description: Service design in a highly complex public organization

Domain: Higher education / Object of design: Service strategy outline

Table 3.3: Overview of additional presentations for theoretical comparison and example project results

how these key categories function in the presentation of a service that consists of the design of a physical space, the presentation concerning the design of a website allowed me to show how these key categories function in the presentation of a service that consists of the design of a digital space. Again, although focus developed on two of the professional presentations, comparisons constantly took place with regard to the third. These comparisons were described to a lesser extent, since no salient (contradictory) categories seemed to emerge from these comparisons.

This intricate process of sampling and comparing across the video recordings is difficult to illustrate without covering the resulting conceptualizations. For this reason, how this process looks like is deferred here and will be further illustrated with the empirical material in chapter 4, 5, 6 and 7. It is important to note that, as the content logs became more detailed, so did their integration with theoretical deliberation. This becomes apparent in how the theoretical memos developed throughout the analysis of the video material as they also became more and more integrated into the consecutive development of the content logs. It is worth noting here that the development of my content logs reflects the jointly employed method of constant comparison and theoretical sampling. The development of

content logs is aimed at being productive in further theoretical sampling and discovery. Its purpose is to direct the process of sampling, not to achieve accuracy/verification or a 'thick' description (Geertz 1994), although these may become consequential in the process. (Glaser 1978, p. 37.) The aim is not to describe and preserve the intricacies of an episode (although this may be a by-product of the combination with video analysis) but to extract grounded conceptualizations of what is taking place in the presentations, and doing so through a systematic process involving multiple iterations of different foci. This allowed the richness of the video recordings to emerge as I cycle and recycle through them. In this respect the development of the content logs reflects the grounded theory process, as much as it reflects the result of a grounded theory that is both emergent and grounded in the data (Glaser & Strauss 1967, p. 40; Glaser 1978, p. 20). The main body of the thesis should thus be considered as a 'highly edited theoretical content log'.

3.11 *Reaching the core category*

The point of a grounded theory approach is to systematically sample and compare in order to reach a level of categorization where relationships can be drawn that separate the properties from the categories, and eventually the categories from the core category. Indeed, the point is to reach an understanding of the core category through constant sampling and comparison (Glaser 1978, p. 94.). In my case, the core category is the title of this thesis: *Storied Design*.

The core category of storied design refers to the main theme, or the main concern or problem for participants in this particular setting of design. It sums up in a pattern of behaviour the substance of 'what is going on'. So, categories and properties do not exist for their own sake. In the presentational narrative the inclusion of data is not meant to be exhaustive, but is required to be only sufficient enough to illustrate the theory as well as its fit and workability.

So, as a product the grounded theory aims to work not only in the practice from which it draws its material, but also in the process of building the theory. As a research strategy for building theory, the adequacy of the resulting theory cannot be separated from the process by which it was generated. The criteria of fit and workability ring particularly true here. As the theory emerges from the process of sampling, this emergent theory feeds back and gives the analyst theoretical control over the process of sampling and comparison. In this regard, the emergent theory serves a strategic purpose in handling data, as well as its description and explanation. The emergent theory starts to make sense and allows for sense making, allowing for iterative and incremental formulation of an analytic narrative of the categories and properties into a theory in the first place.

Glaser goes so as far as to say that the categories and properties generated in the process of a grounded theory approach can be immediately translated into sentences, paragraphs, sections, chapters – a thesis (Glaser 1978). With my materials, this was not entirely so. There is a difference in the analytical documents that I produced as analysis and the documents that I produced for presentation – that is, documents that pertain to an *analytic narrative* and documents that pertain to a *presentational narrative*.

The table below shows the iterative and incremental process of grounded theorizing as broken down in terms of the number of documents and the amount of text produced (Table 3.4). It shows a rough summary of the documents that were created over time and the amount of words they contain. This quantitative representation should not be taken at face value, but in the absence of better visualization methods, it does illustrate the point to some degree. It shows the iterative process of constant comparison between empirical materials and the incremental generation of documents and theory. It also shows how the amount of words grows and shrinks between phases of analytic theorizing and moments of presentation, where a presentational narrative is needed in order to present the work. In the diagram, for instance, presentational 1, 2 and 3 refer to documents shared for supervision.

Presentation 4 refers to the manuscript before pre-examination. As is evident from the diagram, presentation 1 consisted of the full analytical narrative, which is understandable at this point in supervision, where the direction of discovery is not yet clear. However, the following presentational narratives do not pertain to the full analytic text.

In my case, as I sampled, compared and coded iteration after iteration, and as the core category of *storied design* emerged and revealed itself from the data, so did my own understanding of the core category. Indeed, the paradox is that, in theorizing the phenomenon of *storied design*, the accumulated analysis of categories and hypotheses generated in this regard points to a single core category, which both explains the phenomenon and requires an explanation – that is, in theorizing storied design, the clarity of the theory goes hand in hand with its power to explain. Indeed, the final product of a grounded theory approach is both *a grounded theory and grounded theorizing* (Glaser & Strauss 1967, p. 224).

In summary, I explicated a number of key concepts in the grounded theory approach. I discussed how these concepts could become circumscribed when combining a grounded theory approach with the method of video analysis. I discussed how the concepts of the grounded theory approach could be affected by prior theory, but require a grounded theorizing to achieve emergent fit within the developing grounded theory. I traced my overall strategy of sampling to illustrate some of the intricate dealings in the grounded theorizing and my own distinct grounded theory process.

The following chapters consist of a presentational narrative of the grounded theory. The whole analytical process of grounded theorizing is too large to be presented here. The presentational narrative is a ‘highly edited content log’ version of the analytical narrative of grounded theorizing. Roughly half of the whole analytical process has been omitted (see diagram for numbers with underline compared with the numbers in bold). The presentational narrative aims to retain parts of the analytical exposition of grounded theorizing and how the analysis is grounded in the video material. As such, it is constructed to show the reader the most important parts of the analytical process that explicate the elements of the emerging theory. The overall framework of storied design and its principal associated theoretical statements are developed throughout the following chapters and summarized at the end of each chapter and summarized again in the concluding chapter. It is important to reiterate here that the presentational narrative is organized according to the narrative structure found in the video material. A few times, omissions of sequences are made due to overlapping categories and repetition, which also serve the practical purpose of keeping the document at a reasonable size. That said, it is worth repeating that retaining completeness, sequence and continuity in the narrative structure in the presentations is instrumental to my approach to the study of design presentations and my grounded theorizing of *storied design*.

DATE OF CREATION	DOCUMENT	WORD COUNT	TYPE	NOTE
15.11.2012	Video content log	2576*	Content description	6 students
20.11.2012	Video analysis and findings	11325	Theoretical memos	6 students
16.01.2013	Video content log	9814*	Transcript and slides	6 students
18.02.2013	Video content log	10271*	Categories of slides	6 students
07.11.2013	Sequence	510	Sequence chunks	6 students
08.11.2013	Video content log	N.A.**	Content description	1 pitchman
21.11.2013	Video content log	N.A.**	Content description	5 professionals
29.11.2013	1st Iteration	19842	Theory	3 students
15.01.2014	2nd Iteration	21146	Theory	3 students
<u>03.02.2014</u>	<u>3rd Iteration</u>	<u>33797</u>	<u>Theory/Pres. 1</u>	<u>3 students</u>
04.03.2014	Framework	N.A.***	Framework	Basic concepts in theory
10.04.2014	Video content log	3897	Transcript	Juha
11.04.2014	1st Iteration	13222	Theory	Juha
29.04.2014	Video content log	3458	Transcription	Janne
12.05.2014	1st Iteration	9171	Theory	Janne
02.06.2014	1st Iteration	4544	Theory/Pres. 2	Pitchman
02.06.2014	2nd Iteration	11860	Presentational 2	Juha
02.06.2014	2nd Iteration	9208	Presentational 2	Janne
<u>30.07.2014</u>	<u>3rd Iteration</u>	<u>21029</u>	<u>Theory</u>	<u>Janne</u>
11.09.2014	<u>2nd Iteration</u>	<u>6216</u>	<u>Theory</u>	<u>Pitchman</u>
<u>18.06.2014</u>	<u>3rd Iteration</u>	<u>17221</u>	<u>Theory</u>	<u>Juha</u>
10.10.2014	3rd Iteration	6309	Presentational 3	Pitchman
10.10.2014	4th Iteration	15018	Presentational 3	Juha
10.10.2014	4th Iteration	18172	Presentational 3	Janne
04.05.2015	4th Iteration	13699	Presentational 4	2 students
04.05.2015	4th Iteration	4635	Presentational 4	Pitchman
04.05.2015	5th Iteration	11786	Presentational 4	Juha
04.05.2015	5th Iteration	9652	Presentational 4	Janne

*: Not including post-it notes on paper version.

** : Paper copy only

***: Table of terms, definitions and examples.

Presentational 1, 2 and 3 are supervision documents. Presentational 4 is the pre-examination document.

Underline line indicates the largest document containing an analytical narrative of the presentation analyzed

Bold indicates the latest edited document containing a presentational narrative of the presentation analyzed before pre-examination

Table 3.4: Breakdown of the iterative and incremental process of grounded theorizing in terms of the number of documents and the amount of text produced



Basic concepts in storied design

In this chapter, I will explicate the basic concepts of *storied design*. To this end, I draw on an initial sample that consists of six video recordings of student design presentations. These six presentations were subjected to systematic comparison and analysis. In one way or another, each presentation focuses on a service design that is subject to heterogeneity, distributedness and dynamic circumstances. These aspects of the object of design are elaborated further throughout this chapter in conjunction with the explication of the basic concepts in storied design. From these six presentations, I make use of two presentations to illustrate the basic concepts of storied design and how these concepts emerged through systematic comparison and analysis. In providing this account, I aim to retain parts of the analytical exposition of grounded theorizing and how the analysis is grounded in the video material. As such, it is constructed to show the reader the most important parts of the analytical process that explicate the basic concepts in *storied design*.

Analytically, the scope and focus of this chapter are on the staged interaction that takes place *during* the presentation. The analysis of this staged interaction is drawn from, and grounded in, the video recordings of the design presentations. For this purpose, the video recordings are regarded as the main data for analysis. Observations from the field are only elaborated on in so far as the video recordings allow. When relevant, I draw on theories from the extant literature. The process of sampling and analysis is iterative, because the concepts that emerge from it are of immediate relevance and fit within the ensuing process of sampling and analysis. The analysis presented here keeps the narrative structure of the respective presentations intact.

I first establish the scope of the framework as limited to the *staged interplay*, through which I can analyze the *act of storied designing* in showing and telling about a particular object of design. I then use the concept of the rhetorical figure to draw out the concept of *the object of storied design*, which is to establish a relationship within the object of design. I then theorize on the kind of object that is subject to a development over time and argue that some form of storied designing is necessary in representing such an object. I then focus on how the act of storied designing pertains to an *interplay of objects* that results in an object of design that is both *storied* and *designed*: both *dramatized* as a development over time and *grounded* in a concrete object. Three lines of inquiry are suggested in this chapter in regards to: 1) the nature of what is *storied* and *designed* with regards to the object of design, 2) how *representations* of the object of design, rather than the actual object of design, are mobilized in support of accounting for the object of design and 3) how the scope of what is storied about the object of design indicates what *can* be designed about it. I end this chapter with a summary of the basic framework of storied design.

As such, the framework establishes an empirical scope and analytical focus that are specific to the phenomenon of storied design. These concepts constitute the theoretical framework of storied design, as much as the framework of concepts constitutes an analytical resource for studying *storied design*. The resulting framework and lines of inquiry provide a basis for further grounded theorizing of storied design. It provides a starting point from which, in the following chapters, I can build on my initial understanding of its function and why it is needed in the presentation of service design.

The video recordings are taken from final design presentations given during an Industrial and Strategic Design course at the Department of Design, Aalto University. The course was organized as part of the 2012 Helsinki World Design Capital event and in collaboration with an inpatient clinic and an outpatient clinic for psychiatric care in the city of Helsinki (Keinonen et al. 2013). The student presentations took place in the public context of the Helsinki World Design Capital event and were promoted publicly using the Aalto University's media channels dedicated to the event. All six of the student design presentations dealt predominantly with the topical subject of transfer between

the inpatient care and the outpatient care, except one, which dealt predominantly with inpatient care.

The two presentations compared here are sampled for illustration because they are different in terms of the physical expression of the resulting object of design; different in the devices they use in presenting the object; but similar in topical subject, where both address inpatient-outpatient transfer. This allows me to delineate the concepts in storied design more clearly. Team 2's project aims to design a 'transfer ticket' that gives patients forward momentum in the transfer process from inpatient to outpatient clinics (Figure 4.1). Team 5's project concerns the design of branded cooking premises that aim to alleviate the transfer process by offering an open kitchen concept where rehabilitants can come and cook for themselves with the help of volunteers and various non-governmental organizations (Figure 4.2). Team 2's object of design pertains to a concrete singular physical object, whereas Team 5's object of design pertains to a physical space.



Figure 4.1: Team 2's transfer ticket gives patients forward momentum in getting to the next step in their care



Figure 4.2: Team 5's branded cooking premises for shared cooking and rehabilitation

4.1 *The act of storied designing*

In this section, I will identify the act of storied designing within the staged interplay that takes place in the presentations. I do so by comparing three sequences taken from Team 2 and Team 5. The first sequence, from Team 2, is presented in transcript 4.1. This sequence illustrates that the staged interplay has both a narrative and visual form.

TRANSCRIPT 4.1

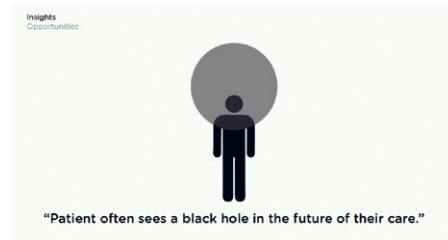


Image 4.1.1

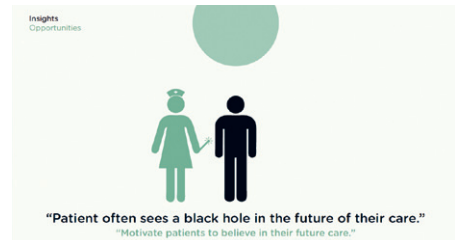


Image 4.1.2

- 1 [new slide (Image 4.1.1)]
Here are some insights and opportunities that we noticed. So, often times the patients can't really see themselves getting better in the future. So, they are not fully committed to their care. So,
- 2 [new slide (Image 4.1.2)]
what we saw as an opportunity there is to make patients believe in their care and see the future.

Visually, the sequence consists of two slides. Verbally, the sequence consists of two specific narratives. Thematically, what is shown and spoken about can be understood as a form of 'problem-solving' (Dorst & Cross 2001) where the first refers to an identified situation that calls for attention and the second to how the situation is resolved. One can note interplay between the two slides, which is reflected in their visual continuity. One can also note interplay between the two narratives, which is reflected in the third use of the conjunction 'so' in line 1. Here, the conjunction 'so' can be understood as a 'discourse marker' (Fraser 1999) that signals a procedural relationship between what is said before and after. The visual and narrative interplay, as well as the thematic content, indicate that the sequence can be understood as a single unit.

Going further, one can also note that visual-verbal interplay occurs within this unit, which is reflected in the sequential staging of both the visual representations and the narratives, which within this unit can be understood as representing a parallel execution of modalities (Bucher & Niemann 2012) that pertains to both a visual form and a narrative form. These are the three basic levels of interplay that allow me to study the act of storied designing within design presentations. In transcript 4.2, I present two more sequences that follow this sequence and illustrate a similar interplay.

TRANSCRIPT 4.2



Image 4.2.1



Image 4.2.2

- 3 [new slide (Image 4.2.1)]
And another problem is that patients just sometimes leave, and they give up their care. There are various reasons for that, but we discovered that there is a transfer process that is working quite well, but if this process is not started early enough, it doesn't work. So,
- 4 [new slide (Image 4.2.2)]
we figured out that it is important to give the patients time to familiarize with the future options. So they have time to see the benefits, to take part in their future care, and that they have time to mentally prepare themselves to the next phase.

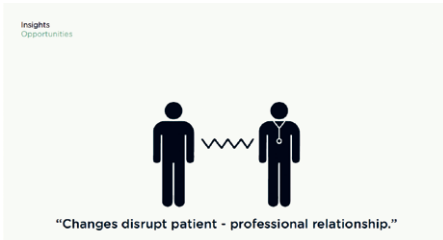


Image 4.2.3

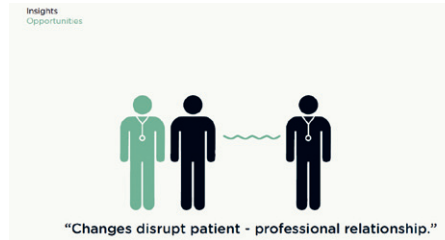


Image 4.2.4

- [New slide (Image 4.2.3)]
- 5 And the relationship between the patient and the professional is quite an important aspect in their care. So this relationship is naturally built over time, and if the relationship is broken, the treatment doesn't progress until a new relationship is built. So, breaking relationships is something that can't be totally avoided, when you transfer one patient from one place to another, but still it can be made easier for the patient.
- [New slide (Image 4.2.4)]
- 6 So the opportunity there is to make the transfer of the care kind of gradual, so the transition goes smoother. And we thought that the ideal point would be that the old doctor would transfer the relationship to the new doctor. So that the new, and old doctor, and the patient would kind of work together, to kind of build the trust.

Team 5 presents a sequence that provides an interesting comparison because the visual forms used in the staged interplay look different. The visual forms used are modelled on two basic methods often found in the design process: customer journey mapping and benchmark mapping. Below I first illustrate the customer journey.

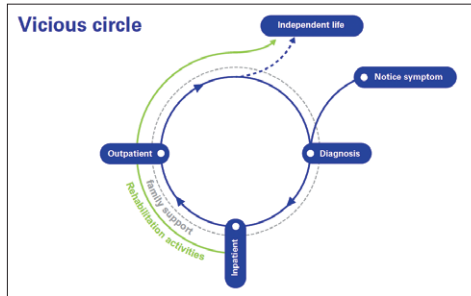


Image 4.3.1

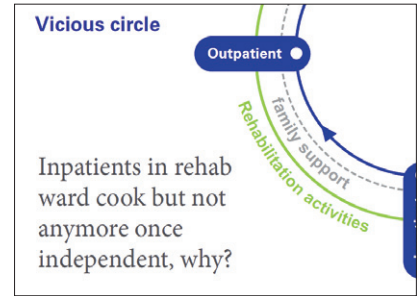


Image 4.3.2

- 1 And to make this more clear | [new Slide (Image 4.3.1)]
| We draw this patient's journey.
- 2 Normally it starts from that side.
- 3 They notice the symptoms first, and they go to hospital, get diagnosis, and after that, they become in-patient, or out-patient, or first in-patient, and then out-patient.
- 4 And when they get better, they get out of hospital and get back home. If they can manage their lives, they can get back to their independent lives.
- 5 And meanwhile, we've marked the rehabilitation activities within the course.
- 6 So it starts from in-patient, and it will accompany the patient to their independent life.
- 7 And, during the interview we have found that, or we have been told by the doctors and nurses, that most patients, they have failed in that part, after out-patient stage. Because they can't manage their lives successfully, they have to go back to hospital. And they fall into this vicious circle. And-uh when the research goes deeper,
- 8 | [new slide (Image 4.3.2)]
| we found that the biggest reason for this failure from this intermediate part, which means the transition from in-patient to out-patient stage.
- 9 And because the nurses told us that some patients, when they are in in-patient clinic, especially in the rehabilitation ward, they cook for themselves and they learn some basic living skills.
- 10 But when they become out-patient, when they live at home, they stop cooking, and they stop to do those daily activities. They stop practicing those skills anymore. So, their condition gets worse.
- 11 And we analyzed this and we think that the reason is, one reason might be that when they become out-patients, because they live at home, so, they lose the certain reason of the nurses, a kind of losing an out-force. So they stop rehabilitation.
- 12 And another reason is that the shift from in-patient to out-patient comes suddenly, so this huge change for patients, they can't manage their lives. So, they stop doing the rehabilitation activities and their condition gets worse.
- 13 Of course this is some problem here and we think this also could be seen as an opportunity for us to do something to help smooth this transition and also fill in this 'missing middle'.

The customer journey is presented in two slides. The first slide shows a rehabilitant's transfer journey in a simplified and abstract diagram. The second presents a zoomed-in area of this diagram. As with Team 2, one can note parallels between the execution of both the visual and narrative form, where the two forms interplay at all three levels, visual, narrative and visual-narrative. For instance, when the presenter comes to the sentence, 'And when the research goes deeper' in line 7, the sentence trails off, but is meant to resume as soon as the presenter manages to change to the next slide. When the slide changes, the presenter resumes the sentence in line 8: 'we found that the biggest reason for this failure [...]'

A similar interplay can be found in the presentation of the benchmark diagram, which is shown in transcript 4.4.

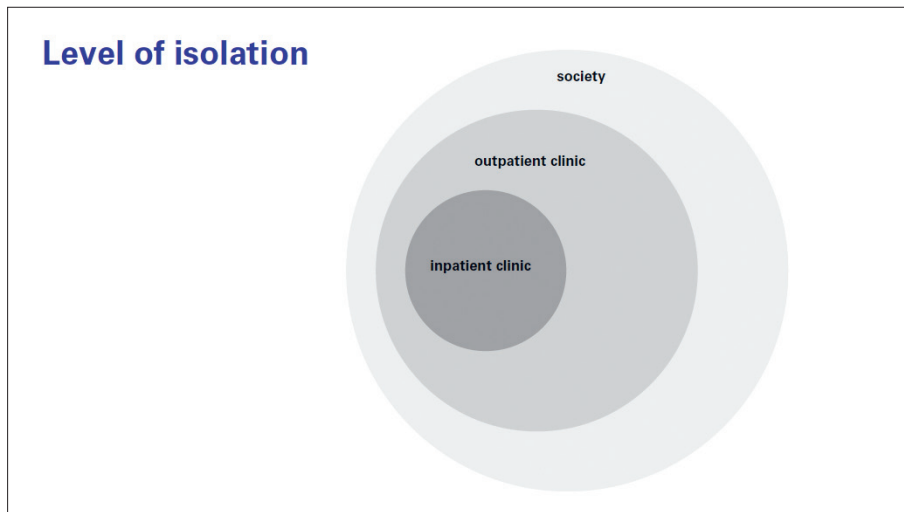


Image 4.4.1

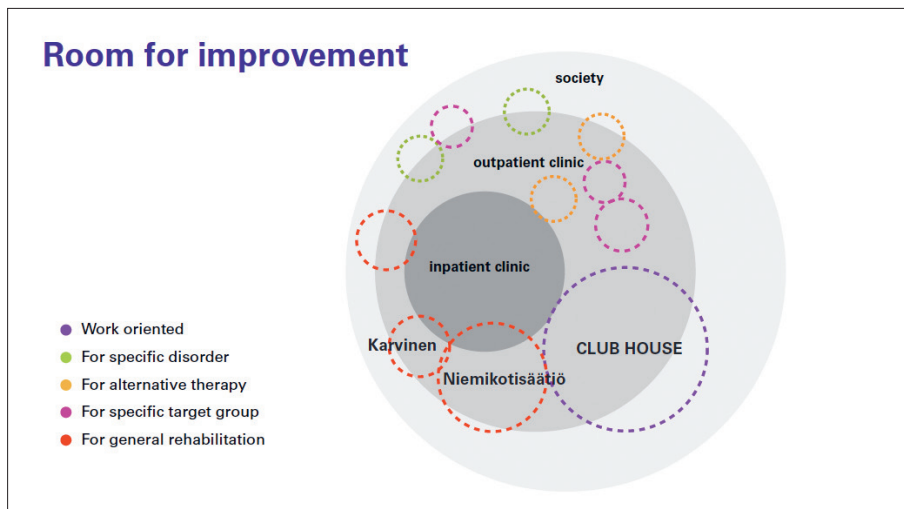


Image 4.4.2

- 14 So, [new slide (Image 4.4.1)] going forward in this direction, here we see the isolation level of the in-patient clinic and out-patient clinic.
- 15 It's clear that in the centre is the in-patient clinic. It is more isolated from the society than the outpatient clinic.
- 16 And the goal of us is to let patient go back into the society, to smoothen those transitions between different spaces. And-uh,
- 17 [new slide (Image 4.4.2)] we also did research on third sector organizations.
- 18 We found that so far there are quite a lot of different third sector organizations. They offer different rehabilitation activities for rehabilitants, but still, although there are many of this kind of organizations, they try to cover this transition part, but because they are scattered and the lack of communication, so the gap is still here.
- 19 To solve this problem and to make good use of existing resource, we come up with the following concept.

The first slide shows a conceptual map of the transfer process. The second slide overlays the map with an arrangement of bubbles indicating rehabilitation activities within this transfer process. This sequence shows a clear visual continuity in the sequence of visual forms and suggests a relationship between the two narratives with the utterance ‘And, uh,’ in line 16, after which one can note a narrative shift that also corresponds with the changing of slides. By overlaying the conceptual map of the transfer process with bubbles indicating ‘different rehabilitation activities’, the visual continuity in the sequence of visual forms interplays with this shift in narrative from ‘isolation level’ to ‘different rehabilitation activities’. This shift takes place in line 17 with the sentence, ‘we also did research on third sector organizations’.

Both Team 2 and Team 5 address the inpatient-outpatient transfer process, but do so differently in terms of how they specify it. For instance, rather than describing the situation head-on, like Team 2 did, Team 5 does so indirectly and in more detail, as indicated by the various terms used in the diagrams (Figure 4.3). However, both Team 2 and Team 5, in their own way, represent the inpatient-outpatient transfer process as pertaining to a particular development. Both teams seem to emphasize this development, through which their respective visual-narrative forms specify this development further and incrementally. That is, the inpatient-outpatient transfer process is *storied* and incrementally *designed* in a sequence of developing visual forms, where the interplay between the narratives and the visual continuity is an indicator of an object being developed within and through a form of storied designing. Both teams are incrementally *storied designing* the inpatient-outpatient transfer process within their respective projects.

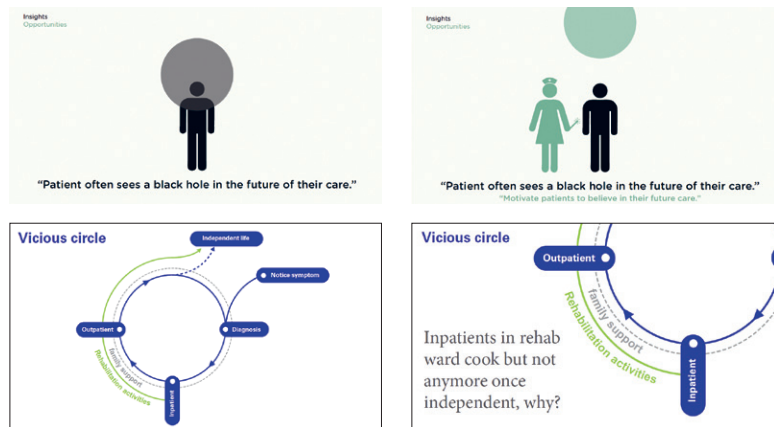


Figure 4.3: Comparison of Team 2's and Team 5's visual forms of the inpatient-outpatient transfer process. Above, Team 2 illustrates the problem head-on; below, Team 5 illustrates the problem via a rehabilitant's journey.

As much as this staged interplay constitutes a property that can be observed in the empirical scope of the design presentation it also represents an analytical resource in the study of the act of storied designing. This basic element of the staged interplay is both conceptually significant and grounded within the empirical observation. It is conceptually significant because it allows me to pinpoint particular forms of storied designing and to formulate an initial conceptual description of the object of storied design that is lodged in that particular interplay. I will illustrate this further in the following section.

Imagine if Team 5 had not used diagrams in its presentation of this sequence. Without a long and wordy explanation, viewers may well have imagined different specifications that bear on the problem. The significance of such visuals is practical. They guide the audience (*external* to the staged *interplay*) in the explanation, as much as they guide the presenter (*internal* to the staged *interplay*) *in the explaining* (Kinross 1985, p. 21). The inclusion of a diagram can be considered ‘an artful departure from the ordinary and simple method of speaking’ (Ehse 1984, p. 55), where the diagram can be understood as a kind of rhetorical figure that specifies in a single image that which is suggested in words.

In this regard, the individual visual forms in the slides can also be understood as rhetorical figures (Bonsiepe 1965; Ehse 1984; Kinross 1985; Buchanan 1985) that are meant to communicate something specific about their projects and their designs. However, as I will explicate in the following sections, these are rhetorical figures of a special kind and will require further clarification as regards to their functions in the design presentation.

First of all, within the interplay, one can note the distinct use of form and colour. For instance, Team 2 uses the colour green and geometric forms. These colours and forms play an important role in the interplay. One example is the ‘jagged line’ (Figure 4.4).

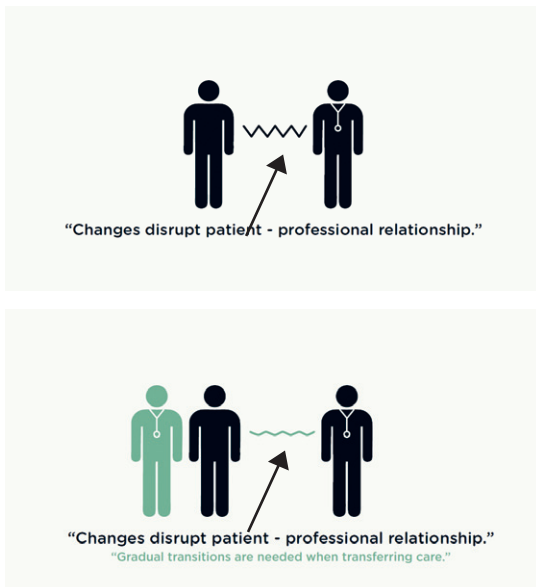


Figure 4.4: Team 2's use of colour and form in the rhetorical figure. The arrow indicates the significant plot device of the 'jagged line'. The caption of the first slide reads, 'Changes disrupt the patient-professional relationship'. In the second slide, we see a jagged line in the same location, but it is now green and its edges are smoothed out. The caption of the second slide reads, 'Gradual transitions are needed when transferring care'. This dynamic is highlighted by changing the form and colour.

The choice of form and colour does not seem to be arbitrary, as one can note in how the visual form functions in the staged interplay. These visual forms could be considered to serve as similes or analogies: for instance, ‘The situation is like a jagged line’, or in the case of Team 5's customer journey, ‘The situation is like a circle’. Team 5's presentation of the benchmark map, however, provides an interesting comparison, because it shows that as one goes down this route, one can note that forcing this categorization onto the benchmark map as such a rhetorical figure becomes increasingly ineffective.

In comparison with Team 2, Team 5's use of form and colour seems to indicate a different approach altogether. Consider the benchmark map once more.

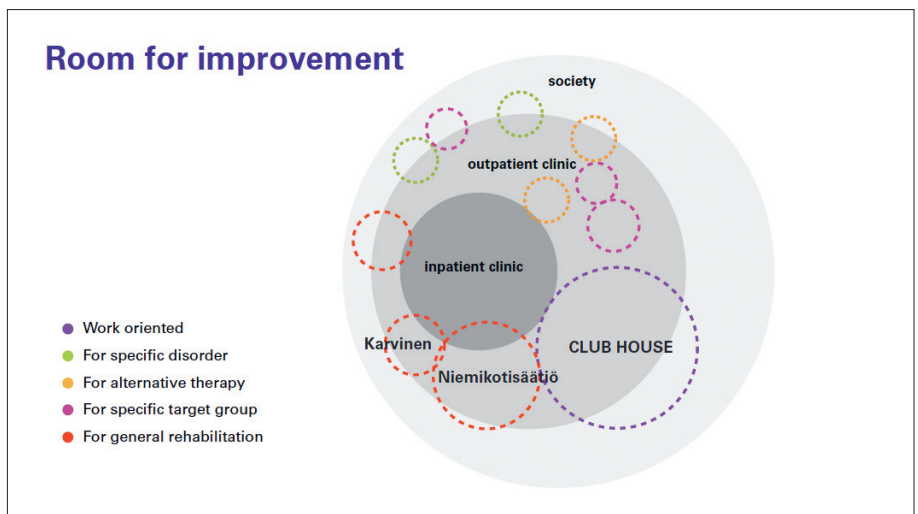
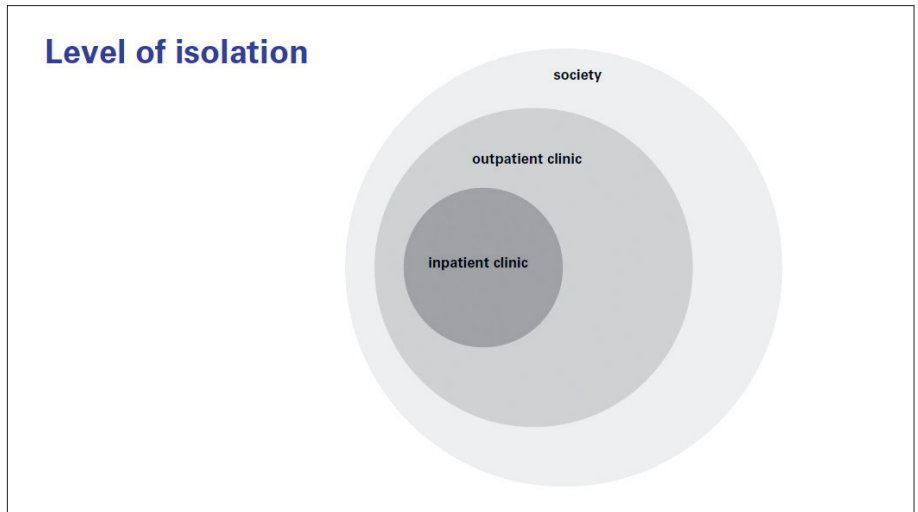


Figure 4.5: Team 5's rhetorical figure contains an important geometric property in terms of the proportions of grey areas in the centre disc and the rings that surround it. The distances differ from any point on the inner ring to any point on the outer ring, creating a relational effect of various visual distances.

An important geometric property of the visual form of the map is the proportions of grey areas in the centre disc and the rings that surround it. As such, it functions *like* a map, but obviously not a map of any conventional kind. It is a conceptual map, where the distances stand in direct relationship with a conceptual value that Team 5 calls 'isolation level'. The further one is from society, the higher the isolation level from it. The grey areas in the diagram accentuate this 'transition between different spaces'. If one wants to 'travel' from the inpatient centre disc ring to the third ring of society, one needs to move across different shades of grey. The distances differ from any point on the inner ring to any point on the outer ring, creating a relational effect of various visual distances. By overlaying the map of grey areas with bubbles indicating 'different rehabilitation activities', the visual continuity in the sequence in visual form interplays with a shift in narrative from 'isolation level' to 'different rehabilitation activities'.

But what makes this sequence specific is the superimposition of these different aspects, and the *relationship* it ‘visualizes and draws together’ (Latour 2012) from these different aspects. The visual continuity establishes a visual relationship, which is further explained by the relationship that is suggested in the sequence of narratives. The relationship that is explained in the shift between the narratives is given additional ‘narrative weight’ that is grounded visually *within* the visual continuity in the sequence of visual forms. The relationship is designed into the visual continuity in the sequence of visual forms, where the relationship it draws together is critical and irreducible, because any fragmentation would diminish its specificity that lives exclusively in the relationship of its parts: ‘transition between different spaces’ and ‘different rehabilitation activities’.

Yet, as the staged interplay indicates, this special kind of rhetorical figure does not in itself provide an explanation; on the contrary, it is the thing to be explained. Indeed, such rhetorical figures in design presentations seem to be designed for this specific purpose and use: to explain a relationship that is both designed and storied in an act of storied designing during a design presentation. That is, one can generalize that *the newly formed relationship* in what is designed and storied in the act of storied designing is *the object of storied design*.

Indeed, rather than speaking of rhetorical figures, one might better think of them as *objects of storied design*, where the relational forms they represent can only be conveyed through some form of *storied designing*. In this sense, my conclusion regarding this kind of rhetorical figure is different from, say, the ones described in Bonsiepe’s (1965) marketing posters, Ehses’ (1984) Macbeth posters, or Kinross’ (1985) dot leaders and font types in timetables. Objects of storied design, such as the customer journey map and the benchmark map, are designed also with the context of the presentation format in mind. In this regard, an object of storied design represents a special category of rhetorical figures that is more specified to design presentation.

Both Team 2 and Team 5 set up different relationships concerning the inpatient-outpatient transfer process. They are different because each team draws together a different set of aspects that pertain to the process, which results in objects of storied design that look different in their own ways. Rather than accounting for the inpatient-outpatient transfer process in general, the objects of storied design seem to emphasize relationships that are distinct to their respective projects. And the established relationships seem to have a practical function in regards to their respective presentations of their projects. They seem to drive their respective design presentations further by relying on those relationships. They seem to hold a particular narrative function in regards to the overarching narrative of the presentation. How does all this happen?

4.3 Interplay of objects of storied design

As the inpatient-outpatient transfer process is specified and becomes more detailed, in objects of storied design, the two teams also specify what the project is about and the task they have assigned themselves. Such objects of storied design could be understood as process objects of design (Bucciarelli 2002) that are significant in regards to the design of a particular object, where the object of design is both ‘described’ and ‘prescribed’ (Latour (writing as Johnson) 1988) by a specified relationship. As such, the object of storied design, other than giving form to a specified understanding of the inpatient-outpatient transfer process, seems to reflect the object of design in question. That is, both teams specify an approach of design to address the inpatient-outpatient transfer process from the perspective of their own objects of design, which is bound to be different for each team. It is important to note that all of these aspects, and possibly more, are represented in the visual and narrative forms studied in the previous sequences.¹

One can note a further differentiation of such diagrams from a simile or analogy in one important aspect. They are different because *they pertain to a form of rhetoric that refers to an object of design that is not yet known to anyone at the moment of presentation, other than*

¹ However, analytically, the exact extraction of the newly established relationship as an object of storied design from these sequences did not proceed without advance knowledge of the exact final outcome of Team 2’s and Team 5’s designs. That is, this analysis proceeds with the knowledge of how the object of storied design functions within an interplay that results in a more-or-less finished object of design. This methodological imminence is immanent to the scope, focus and method (Kermode 2000). Without an end, the means used will be difficult to understand (Latour 2012). This interplay of objects within the design presentations functions as an additional analytical resource for the study of storied design.

those who present it. Such a form of rhetoric is not generalizable, but remains specific to a particular object of design, to a particular presentation (although its generalizability may be of use when designing that particular object of design for use in wider applications). Diagrams such as the customer journey map and the benchmark map, are not only designed with the context of the presentation format in mind, but more importantly, they are designed with a more-or-less finished object of design in mind. They are intended to be *instructive* in regards to a specified relationship that is designated as being specific to a particular *object of design*. That is, objects of storied design can only be conveyed through some form of *storied designing* that proceeds under the direction of a particular *object of design* as an end result. To emphasize the conclusion of this section, the resulting specified relational form *is* the object of storied design, where the relational form *can* only be specified through a form of storied designing that is determined by the end result of an object of design.

By narrowing the empirical scope to the staged interplay that takes place within the design presentation and by focusing my analytical attention on the object of design, I developed an initial formulation of the object of storied design. The concept of the rhetorical figure was only addressed in so far as it was useful in sensitizing the development of the object of storied design throughout the analysis. The inception of the object of storied design replaces the concept of the rhetorical figure by merit of its emergence from, and fit for, my own process of continuous grounded theorizing.² An analytical elaboration on its fit and workability in and through further grounded theorizing follows next.

4.4 *The kind of object in storied design*

The following sequences in Team 2's and Team 5's presentations provide an interesting comparison with the previous sequences, because they illustrate further how the object of storied design is both storied and designed, and the kind of object that becomes the subject to the act of storied designing. Furthermore, the comparison between how Team 2 and Team 5 go about in doing this provides an additional means of analyzing how the difference in the use of visual form marks a difference in the form of storied designing.

At this point in Team 5's presentation, a new presenter takes over. As the first presenter introduces the second presenter, the second presenter takes the lead and thanks the first for his introduction. This indicates a shift in sequence. Team 5 moves from the first part of their presentation to the second part. In a set of four slides, the presenter is storied designing a number of relationships by incrementally showing the different core components of the design in a molecule diagram and explaining the various relationships between these components as the molecule diagram becomes designed.

② It is important to clarify here that, in regards to the analytical procedure of grounded theorizing, the object of storied design provides a refined conceptual fit for my developing empirical scope and analytical focus, since the object of storied design, and its fit, emerged from the developing scope and focus.



Image 4.5.1

- 20 | [new slide (Image 4.5.1)]
 | If you remember my starting comment, that food is essential to everyone's wellbeing.
- 21 And this holds especially true to these psychiatric rehabilitants, because not only do they forget how to cook, they forget how to take shower, but also because, especially when they are, when they got into this cycle, when they are young, they lose their opportunity to get education, to get more income.
- 22 So, pretty much the majority of the patients don't have much money.
- 23 So there are so-called third sector organizations, or NGOs, offering inexpensive food or like free food once a week.
- 24 But we thought there could be as an opportunity space.
- 25 So we offer low-cost or free food, but we have the rehabilitants cook.
- 26 So this is the centrepiece of our puzzle.
- 27 And then there is always somewhere you have to come and cook, rather than just come and eat something.

With this opening statement, 'If you remember my starting comment, that food is essential to everyone's wellbeing' (line 20), the presenter engages in a discussion about value at a very general level. With the tip of his finger, the presenter points out that cooking forms both the problem in the transfer process and a solution for a different rehabilitation activity, hence, 'the centrepiece of our puzzle'. In the second slide, the presenter reveals a possible relationship between this narrative of cooking and a narrative on the 'availability of rehabilitation professionals'.



Image 4.6.1

- 28 | [new slide (Image 4.6.1)]
 | And in the 'Fearless everyday' premises we always have two or more professionals from different sectors.
- 29 So, let's say one doctor from in-patient clinic, one nurse from out-patient clinic, or one social worker and one nurse from out-patient clinic, everyday: different people, from different sectors.
- 30 So, they are available casually to the rehabilitants, to talk to them, but they are also available to each other, so they can learn from their practices.

It becomes apparent that the diagram in itself does not offer an explanation, but on the contrary becomes the thing to be explained. This becomes apparent in the staged interplay. The first thing to note is the significant conjunction 'so' as a discourse marker (Fraser 1999) in making a 'counter-factual argument' (Bucciarelli 1996) in the relationship of the two narratives of 'cooking' and 'availability of professionals'. Between the previous sequence and the current one, the presenter is storied designing a relationship between the two narratives and the claim about what effect this relationship could lead to. Although a relationship is suggested in the visual continuity in the sequence of visual forms, the suggested relationship only becomes explicit in the following sentence: 'So, they are available casually to the rehabilitants, to talk to them?' (line 30). Only with this explanation in a narrative does it become explicit what kind of development the relationship of 'cooking' and 'availability of professionals' may lead to – namely, the sophisticated activity of 'casual talk'. In this form of storied designing, the visual continuity is less clear on this. The only marker one finds is the added caption 'Communication within the care scope'.

In the third slide, the presenter reveals a possible relationship with 'Local rehab activities' with a caption stating 'Good to great'.

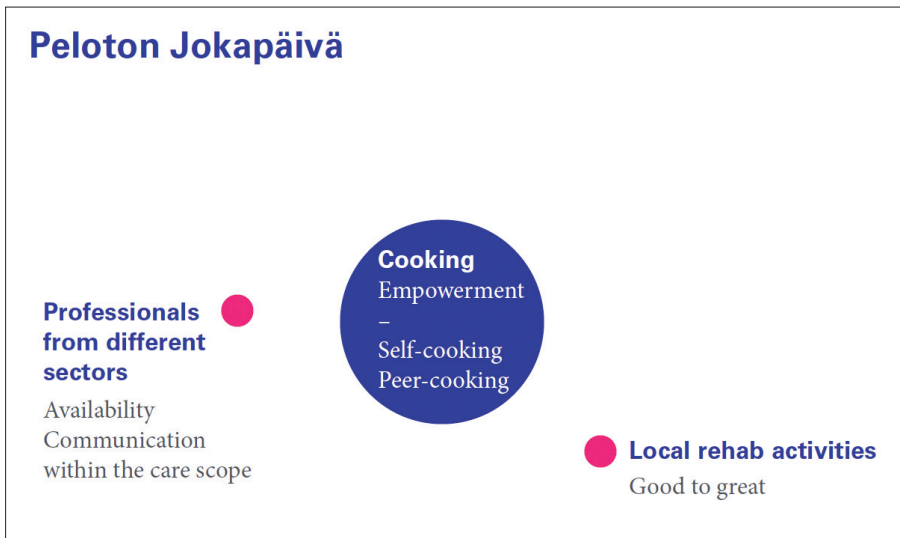


Image 4.7.1

- [new slide (Image 4.7.1)
| We don't only brand these premises, it is actually a shared brand.
- 31
- 32 So, existing third sector organizations remain as they are,
- 33 and when they accept this cooking idea, and when they have these conditions,
- 34 we call them 'Fearless everyday' premises.
- 35 And so, it doesn't only give new function; it grows on their strength.

At the outset, this sequence seems to be a continuation of a form of storied designing initiated in the previous sequences. Similarly, one may look for how a further specification of a relationship between the components of 'Cooking' and 'Local rehab activities' in the object of storied design becomes explained. The first thing to notice is the significant use of the conjunction 'so' in the sentence 'So, existing third sector organizations remain as they are' (line 32). Here, too, the conjunction 'so' signifies a discourse marker that pertains to a relationship between what is stated before and after. However, this time the conjunction 'so' is a precursor for a chain of suggested relationships in a sequence of narratives. This sequence starts with 'Existing third sector organizations remain as they are' (line 32) and continues in a series of 'and then' statements: 'and then they accept this cooking idea', which is followed by 'and then when they have these conditions, we call them "Fearless everyday" premises' (line 33-34). Between the previous two sequences and the current one, the presenter is storied designing a set of temporally separated events pertaining to some type of protocol that provides an organizational advantage. Here too, one can note that the presenter is storied designing a relationship that becomes explained in a narrative, while the visual form is less explicit on this.

In the fourth slide, the presenter reveals a final relationship with a component entitled 'Union brand'. In the diagram, one can note a circular line that connects all the components within what looks like a molecule diagram.

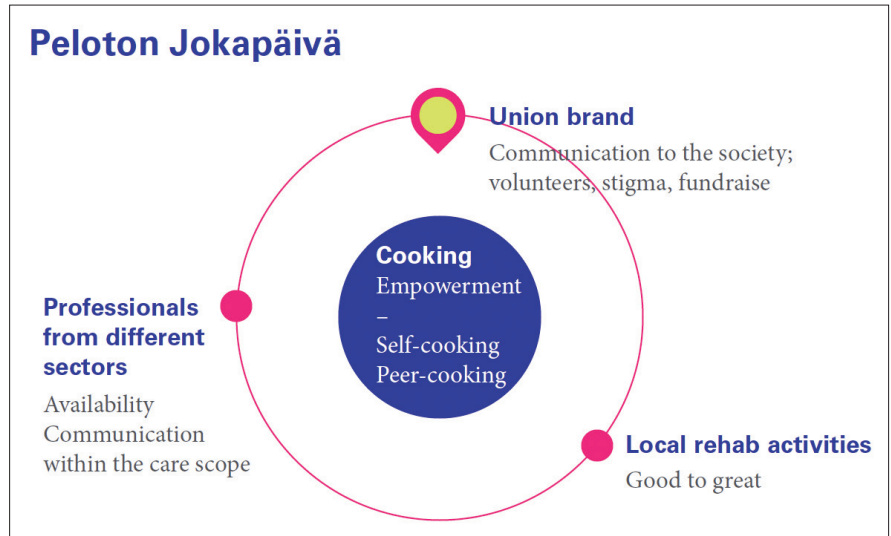


Image 4.8.1

- 36 | [new slide (Image 4.8.1)]
| And finally, it is, as a union brand, it is a nation-wide brand, it is actually communication to the society.
- 37 | So, you communicate to non-patients who will become volunteers, who will meet with rehabilitants: they will understand actual mental illness is prevalent: it can happen to anyone.
- 38 | So it also solves stigma, and then eventually they will also be the change agents and then they will also help us fundraise.

This sequence continues a similar form of storied designing. This becomes apparent in the use of the pronoun ‘it’, where the repetition of the pronoun emphasizes a narrative sequence: ‘It is, as a union brand’; ‘it is a nationwide brand’; ‘it is actually communication to the society’ (line 36). This form or repetition in narrative sequence continues, but replacing the pronoun ‘it’ with the pronoun ‘who/they’: ‘So, you communicate to non-patients’; ‘who will become volunteers’; ‘who will meet with rehabilitant’; “they will understand actual mental illness is prevalent: it can happen to anyone” (line 37). It is in and through this repetition in narrative sequence of ‘it is, it is, it is – who will, who will, they will’ that the presenter emphasizes what these relationships may lead to: ‘So it also solves stigma’ (line 38).

This set of sequences allows me to demonstrate a particular form in the object of storied design and the corresponding form of storied designing. Although the incrementally designed diagram singles out a mixture of specific components, and although the visual reference to a molecule seems to help in drawing these various components together, the relationships that are drawn only seem to become explicit in what is storied with it. Hence, the presenter's opening statement about food at the beginning of this sequence seems to be significant, not only in setting the scene for their project at a general level, but also in setting the tone for what form of storied designing will develop within this scene.

The variety of relationships suggested in this set of sequences also allows me to illustrate a glimpse into the kind of object Team 5 is concerned with: ‘Casual talk’, ‘A protocol’ and ‘Communication to society’. The kinds of relationships that are subject

to storied designing point to advantageous social conduct or some sort of beneficial organizational conduct or societal awareness that develops over time. Indeed, when we consider this kind of object, it may even seem inevitable that narratives are used, given that this kind of object pertains essentially to an intricate process that happens over time (e.g. how participants come to converse over cooking, how third parties come to join in and how a stigma is solved). That is, the *kind of object of storied design* involves a change over time.

4.5 *Dramatizing the object of storied design*

Now, imagine if Team 5 had not used such abstract visual forms. The following sequence in Team 2's presentation provides an interesting comparison because their use of visual form looks very different. Team 2 presents a set of slides featuring a storyboard. With this sequence, I will continue to illustrate further the kind of object that involves a change over time and show how Team 2's use of a storyboard allows for a different form of storied designing.

At this point in the presentation, one can note a change in presenters. As the first introduces the second, he says, 'So, next, we're going to hear a story about Sami who is being transferred from inpatient care to outpatient care', and steps back. While the second presenter is preparing a paper script in her hands, a third presenter takes a seat behind the laptop (See Figure 4.7).



Figure 4.7: Rearranging roles for who does what on stage — presenter 1 (black sweater) steps back, presenter 2 (white blouse) steps forward and prepares to speak, and presenter 3 (purple dress) moves to the laptop and positions herself behind it.

TRANSCRIPT 4.9

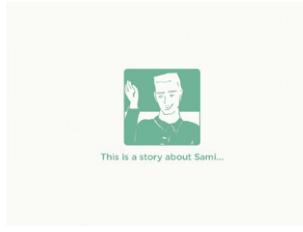


Image 4.9.1

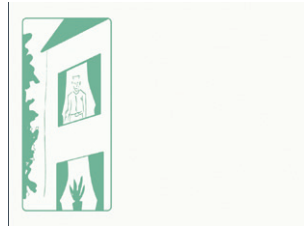


Image 4.9.2

7 | [new slide (Image 4.10.1)] | [new slide (Image 4.10.2)]
 | Sami has been cared for by Aurora | for the past three months, where he is making more
 and more progress in his treatment every day.

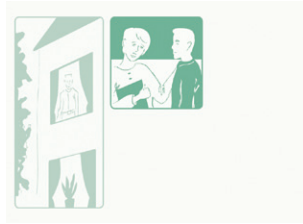


Image 4.9.3

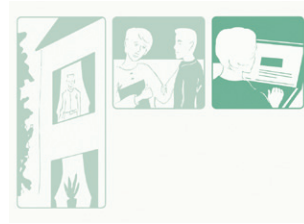


Image 4.9.4

8 | [new slide (Image 4.10.3)]
 Doctor Tiina has been following Sami's progress | carefully, and feels
 that Sami is ready to talk about Sami's next steps.

9 Doctor Tiina arranges a time to meet with Sami so that they might discuss
 the possibilities for his future care.

10 Doctor Tiina tells Sami that she believes that he is ready to progress on
 the next step in his care. And together they decide that continuing to
 Malmi out-patient clinic is the best possible route to take.

11 | [new slide (Image 4.10.4)]
 After the meeting doctor Tiina makes a referral, | and sends it via Pegasus³ to Malmi.



Image 4.9.5



Image 4.9.6

12 | [new slide (Image 4.10.5)]
 Soon after doctor Tiina is contacted | by doctor Laura from Malmi.

13 The two doctors discuss Sami's information briefly and doctor Laura responds positively.

14 Together with Sami they arrange a further meeting with Aurora, and the first meeting in Malmi.

15 When Sami and the two doctors are happy with the arrangements, the dates are confirmed
 by doctor Laura at Malmi.

16 | [new slide (Image 4.10.6)]
 And the referral confirmation | is then sent instantly to doctor Tiina in Aurora,
 and is printed automatically as a ticket.



Image 4.9.7

- | | | |
|----|--|---|
| 17 | Later, doctor Tiina | [new slide (Image 4.10.7)]
 meets Sami, where she hands him the printed ticket. |
| 18 | She explains to Sami his next steps and the journey that lies ahead. | |
| 19 | Sami feels the ticket in his hand. He feels with anticipation and feels grateful for his future. Sami reads the details of the ticket, finds his name next to his new doctor, and already feels a subtle sense of belonging. | |

The sequence opens with a slide and the second presenter starts reading out loud from a script. The third member of the team clicks the slides forward as the second presenter reads the script. Team 2 decided to use a paper script for the performance. In addition to scripting what to say, the script also includes stage directions for who does what and when. The choreography shows that the staged interplay is explicitly organized and designed to follow and preserve a certain order. Indeed, the visual-narrative interplay is now clearly embodied both in and through the staged choreography.⁴

The second thing to note is that, encapsulated in the storyboard, one can note an actual graphic representation of an early form of the ticket. The storyboard seems to be designed to incrementally show what happens to the ticket in a sequence of visual form that is meant to be storied with the narrative commentary on that sequence. This visual-narrative interplay seems inherent to the storyboard format. Team 2's use of a storyboard illustrates a form of storied designing, where relationships are literally drawn together in a graphic form that typically necessitates some complementary form of narrative.

The storyboard incrementally draws together a number of relationships in regards to the ticket and the various other technologies that are involved (including the respective techniques that are necessary to steer such technologies). These would be the computer (emailing), the phone (calling) and the printer (printing). Of course, the ticket (transferring) is central to this arrangement. The relationships that are established as visually evident may be rehearsed in part through the different narratives. That said, it becomes apparent that the narrative interplay focuses on something else: Sami's reaction at the moment he is given the ticket. The storyboard incrementally shows this visual arrangement of technologies, where the narrative explains how this visual arrangement has a bearing on the process of transfer. Even the whole procedure of consecutive steps that are necessary to transferring (e.g. emailing, calling, printing), as incrementally designed into the storyboard, can be considered part and parcel of this technological arrangement that ultimately has a bearing on this specific transfer process. That is, other than accounting for relationships via technological means, identifying this specific relationship in process over time that has a bearing on the ticket seems to be the target of the design of the storyboard and the story in its narrative captions.

This becomes apparent when the ticket comes into play and when this relationship is dramatized in the exchange of the ticket and Sami's reaction to the ticket: 'Sami feels the ticket in his hand. He feels with anticipation and feels grateful for his future. Sami reads the details of the ticket, finds his name next to his new doctor, and already feels a subtle sense of belonging' (line 19). This represents a thickening of the plot, where this relationship of cause and effect needs to be storied and dramatized in order to become identifiable as such (Burke 1969). The storyboard seems to help in identifying with the story that is suggested by

④ It is interesting to note, however, that in this sequence the division of roles in the presentation becomes particularly apparent when a glitch occurs in the technology. In the middle of a sentence, the slideshow for some mysterious reason jumps to the next slide ahead of time. This appears to confuse the first presenter, because he abruptly looks at the third presenter, the one responsible for the slides, to see whether she can do anything about it. However, the third presenter, by that time, has already moved to the back and has to return to the laptop to correct this glitch by clicking the back button. Apparently the roles were so strictly divided that the first presenter did not even attempt to engage with the problem at hand. Instead, he expected that the third presenter, who was further away from the laptop at the time, should come forward and fix the glitch.

Sami's changing worldview. The depictions seem to play an active role in dramatizing what this specific relationship may *look* like. For instance, doctor Tiina is given a face, permitting one to see her facial expression. Then, one can see a depiction of the ticket as positioned between two hands that are nearly touching. Such depictions visualize the context in which the relationship takes place and how it develops over time (Figure 4.6). By doing so in an identifiable way, such depictions attempt to further visually dramatize Sami's inner world of experience in regards to the relationship that is established in the exchange.



Figure 4.6: Details in the depiction of Sami's material environment: doctor Tiina and the hand-off.

The totality of visual and narrative form seems to comprise a form of drama in the act of storied designing, where *one comes to identify with the function of the object of design through a specific relationship that develops over time and becomes part and parcel of the object of design* (Houkes 2006; Redström 2006). The designed storyboard, along with the story in its narrative captions, allows Team 2 to identify the meaning of the ticket through showing and telling what it does and how it manoeuvres within a specific relationship over time. Yet, it does so without explicating the actual ticket itself. The ticket seems to function merely as a placeholder at this point. What we see and hear is the context or the situation of a dramatic development over time of which the ticket is part. That is, *one can dramatize a context or a situation of a development, rather than the object of design itself*.

It is important to note that the development that is dramatized within this sequence is both exclusive to the subject of what is *storied* and extends beyond the subject in what is *designed* in and through the drama (Liao & Person 2015). Whereas Sami and Sami's story remain inside the storyboard and its narrative captions (after all, Sami does not exist beyond this visual-narrative construct), the visual features that are designed in the storyboard and highlighted through the drama may well extend beyond the subject of the story. That is, it seems that the dramatic form in the act of storied designing also informs a rough idea surrounding the physical properties and dimensions of the ticket and the kinds of records that are to be printed on it.

That which is dramatized in the act of storied designing is not to be taken at face value, but should instead be understood in regards to an object of design that is circumscribed by it. Rather than an instance from the life of Sami, the dramatized relationship draws together particular design specifications. Sami's story can be understood to be relevant only in so far as it is instrumental in explaining a set of specifications for the ticket. Yet, Sami's story is required, since these very specifications can only take on meaning when storied through the character of Sami, that is, shown in the way this represented 'user' would 'use' it (Hyysalo & Johnson 2015). Such relationships that develop over time in regards to an object of design become both storied and designed in the storyboard. *The object of storied design becomes dramatic in so far as it is possible to identify with the relationship created through the act of storied designing*.

4.6 Narrative weight in the object of storied design

Both Team 2 and Team 5 seem to deal with a kind of object that necessitates some form of storied designing. However, it is obvious that the form of storied designing differs

significantly between the two teams, where the respective visual forms in the storyboard and the molecule diagram determine the form of storied designing significantly. In the storyboard, Team 2 must depict those parts of the built environment that are relevant to the developing relationship. This rendering of a built environment allows a dramatic tension to be both storied and visually grounded within that built environment. This degree of dramatic tension and grounding is simply not possible with the diagram format Team 5 chose to employ. Furthermore, in contrast with Team 5's diagram format, one can note material specifications within the visual form of the storyboard that are relevant in circumscribing what the object of design should comprise of in material terms. The storyboard format gives a sense of scale in the material relationships and does so more concretely than the diagram format.

Team 2's storyboard allows for a form of storied designing, where the visual form seems to provide grounding for the dramatic situation that is storied. The visual form seems to have a narrative weight. This narrative weight is reflected in the strict preservation of the visual-narrative interplay that is embodied in the staged choreography. The way members of Team 2 literally 'designed' themselves into the act of storied designing the storyboard further indicates this narrative weight being given to the storyboard. Team 5's diagram allows for a different form of storied designing. Team 5's diagram allows for a 'freer' form of storytelling than the storyboard. Team 2's storyboard needs to be storied in the sequence of the depictions that have narrative captions. A displacement of depictions would break the relational form that the storyboard is designed to convey in the first place. Team 5's depictions of the components within the molecule diagram can, if necessary, be arranged at will and according to need. Relational forms are allowed to emerge accordingly. This allows the presenter a greater freedom to narrate particular relationships, where the narrative weight in the molecule diagram allows the form of storied designing, relative to Team 2's storyboard, to be more underdetermined in form.

The following sequence in Team 5's presentation provides an interesting comparison with their previous sequence because the object of design is now more or less determined in the final rendering of their project. This allows me to further illustrate the concept of narrative weight in the act of storied designing. I show how the presenter is storied designing various relationships, where the narrative weight is given to, grounded in, and carried by the final rendering. The rendering shows aspects of what is storied as evident in the designed visual form. I show how the rendering draws together and provides further narrative weight to the suggested relationships that were established in the previous sequences.

In the following sequence, Team 5 presents a CAD rendering of branded cooking premises. This rendering consists of a mix of photographic and digitally completed elements, most notably people, furniture, foods and other elements of an indoor space. A typical Helsinki early 20th century low-rise inner city skyline is visible in the background as a photographic element (see image 4.10.1). Based on this rendering, the presenter elaborates on a number of scenarios. So, rather than one rendering, it would be better to speak of an ensemble of sub renderings that are highlighted one by one in the narration. With each scenario, Team 5 incrementally shows a visual arrangement of specific design components represented in the rendering while explaining their relationships in terms of how rehabilitants can make use of these on the cooking premises. Transcript 4.11 indicates how the rehabilitants make use of the space.



Image 4.10.1

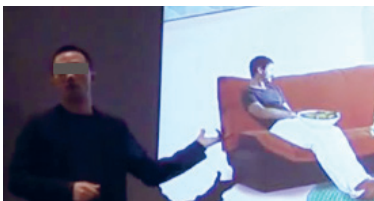


Image 4.10.2

39 | [new slide (Image 4.10.1)] | [points at slide extensively, so hand and arm enter projector light (Image 4.10.2)]
 | So this is a | typical 'Fearless everyday' premises.



Image 4.10.3



Image 4.10.4

40 | [new slide, top two character in the middle are highlighted (Image 4.10.3)]
 | [Points at slide, so hand enters light---- (Image 4.10.4)]
 ||| Points at slide so hand and arm enter light (Image 4.10.5)
 |||| now face enters light (Image 4.10.6)]
 |||As you can see, there is one rehabilitant |||and one volunteer |||| cooking together.



Image 4.10.5



Image 4.10.6



Image 4.10.7



Image 4.10.8

41 | [Points at slide, so hand is in light (Image 4.10.7 and 4.10.8)]
 | So he is not cooking something fancy, he is just cooking very very simple.
 | If he's not well enough he can just do "voi leipa", like sandwich.



Image 4.10.9

| [New slide, character in the left middle is highlighted (Image 4.10.9)]

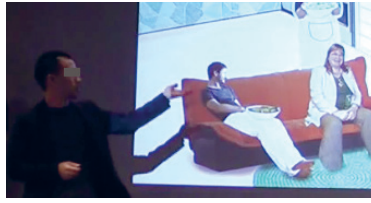


Image 4.10.10

42 | There is another rehabilitant || [Points at slide---- hand and arm are in light (4.10.10) bringing || food to her friends



Image 4.10.11

|| [Points at slide, so hand enters light---- (Image 4.10.12)]



Image 4.10.12

43 | There is another || rehabilitant waiting for her friend's food ||| now arm and face enter light (Image 4.10.13) and then there is a staff of the local NGO



Image 4.10.13



Image 4.10.14

| still pointing (Image 4.10.14) | that is talking to the rehabilitant.

This sequence consists of three parts. In the first part, the presenter points out that there are two people cooking in the centre of the rendering. The two people in question are highlighted. Surrounded by these two people, we can see specific cooking-related items, such as a stove, cutting boards, mixing bowls, plates, and ingredients for food. The atmosphere at the cooking table is laid back. Since no one is required to make dishes involving difficult and complicated recipes, a 'sandwich' suffices.

In the second and third part of the scenario, the presenter points out one rehabilitant who is bringing food to her friends. This person is now highlighted. One can discern the cooking area in the middle, from which the food needs to be brought to the dining area, which is the topic of the third part of this scenario. The dining area consists of a sofa. The friend whose food is being brought and a NGO staff member are sitting on the sofa. Now these two people are highlighted. While waiting for food, this rehabilitant is engaging in casual talk with the NGO staff member – exactly the type of behaviour the premises are intended to support.

In comparison with the molecule diagram presented earlier, one can note a significant difference in the staged interplay. The opening words in the sequence, ‘So, this is a typical “Fearless everyday” premises’ (line 39) already indicate this difference with the use of the deictic noun ‘this’ in referring to the rendering. More references to the specific visual arrangements in the rendering highlight the difference. For instance, with the deictic noun ‘there’ (line 40), in locating a specific rehabilitant on this drawing; a second ‘there’ (line 42), in pointing out another specific rehabilitant in the drawing; and a third ‘there’ (line 43) in locating another specific rehabilitant present in the drawing. The visual-narrative interplay becomes further evident in the way these references are interspersed into the narratives. These narratives are made in response to, as well as made possible by, the specific visual arrangement present in the rendering.

The visual-narrative interplay is further emphasized in the staged choreography between the presenter and the rendering, where the presenter's body seems to ‘become part’ of the rendering. At some point, the presenter is immersed in pointing, indicating and tracing the rendering to such a degree that he literally walks into the light of the projector with his entire upper body while explaining a particular visual arrangement (See Figure 4.8). His body is now *in* the rendering. The presenter is storied designing himself *into* the object of storied design by establishing a staged spatial relationship between himself and the rendering.



Figure 4.8: Presenter literally walks into the drawing

As much as the presenter moves ‘into’ the object of storied design, the object of storied design also seems to move ‘onto’ the presenter. This is evident in the way his body pertains to a particular body semantic that mimics the visual arrangement that is referred to in the rendering. For instance, when he speaks about making a sandwich (see Figure 4.9), his hands mimic holding on to a sandwich. In addition to making references to the rendering, his body extends the object of storied design beyond the rendering itself and onto the stage.



Figure 4.9: Presenter mimics making a sandwich

Other than the staged interplay, a key observation is the interplay of objects that takes place between this rendering and the relationships that were established earlier. That is, the different specifying relationships, which were referred to earlier in the molecule diagram, are now grounded in a visual form, which is composed of visually concrete objects, arranged within a visually concrete space. The rendering presents a visual form that is materially specified in terms of physical dimensions, making it representative of something concrete and what the material in question is suitable for. For instance, the composition of the cooking area, utensils, and sofa visually expresses particular logistics specific to cooking and dining. Further details on what, how, where and when do not need to be narrated, but are specified and demonstrated in the visual composition of the rendering. Narratives, such as ‘communication to society’ or ‘solving stigma’, are now visually grounded in, and specified to, a worktop that is large enough for at least two people to cook side-by-side, thereby facilitating the preparation of simple dishes such as a sandwich and conversation while cooking. Waiting is inherent to cooking, with one party cooking while the other waits for the meal, and this logistical arrangement allows for conversation to fill in these gaps. As far as this is not clear already, this logistical arrangement is now visually grounded in, and specified in terms of, the visual separation of the two areas that designate different phases within this logistical arrangement.

Unlike with the molecule diagram, the narratives are now grounded in the visual arrangements referred to in the rendering. Even the daylight view of Helsinki seems to tell something concrete about how, where and when these scenarios are taking place as well as who and what are involved. Yet, the rendering itself does not provide an explanation, but on the contrary is the thing explained. Within the presentation, at this stage of storied designing, the rendering redraws together the relationships that were established earlier and now become evident within the rendering.

This indicates that the rendering carries more narrative weight in the act of storied designing; the deictic nouns, the staged choreography and the interplay between the objects in storied designing become indicators of how that weight is given, taken and carried by the rendering. Indeed, it seems that at this stage of storied designing, the object of storied design becomes storied, designed, and grounded in a more-or-less finished object of design. Yet, although the rendering seems to represent a more-or-less finished object of design, the active storied designing of it indicates that this more-or-less finished object also pertains to an object of storied design, but functions as an endpoint for the act of storied designing.

4.7 *The object of design in service design presentation*

In regards to Team 5's CAD rendering, one can still wonder what was actually designed. In the end, Team 5 did not go out and find a location; decorate this location to their specifications; and present this location. Admittedly, this would have made the task a lot more complicated and perhaps beyond expectations, considering the time they were given within the project. However, for my purpose, Team 2 provides an interesting point of comparison, because the ticket is different as an object of design. Team 2 created a prototype of the actual transfer ticket. They then used this artefact to make a series of photographs.

With the following two sequences (transcript 4.11 and 4.12) I show how a relationship with regards to the object of design becomes grounded: 1) in the sequence in which the photographs are presented; 2) in the way each photograph is intentionally framed; and 3) in the graphic elements designed on the ticket itself. In comparison with Team 5's presentation, these three observations result in the following three lines of inquiry with regards to the object of design in service design presentation: 1) the nature of what is *storied* and *designed* with regards to the object of design, 2) how *representations* of the object of design, rather than the actual object of design, are mobilized in support of accounting for the object of design and 3) how the scope of what is storied about the object of design indicates what *can* be designed about it.

4.7.1 *The temporal nature of what is stored and designed with regards to the object of design*

In the following transcript, the presenter shows two photographs taken of the ticket and explains it works.

TRANSCRIPT 4.11



Image 4.11.1



Image 4.11.2

- 20 So, the problem of making the patient successfully continue to the next phase of its care has to be confronted at two levels. First of all, you have to support the patient's emotions, and at the same time provide practical functionality.
- 21 [new slide (Image 4.11.1)]
| The ticket is a sort of concrete manifestation of the continuity of the patient's care, and the patient has it with him, so it directly affects the situation when the patient is released from the hospital.
- 22 And he is feeling that he is not coping on his own. The patient might think that I know my next meeting, because it's written on the ticket, so it's a really concrete thing.
- 23 And also, especially concerning the patient, who might not have any friends or any family members they can rely on, it's the only thing that they have there.
- 24 [new slide (Image 4.11.2)]
| We figured out that, if value is added to the referral, which is the ticket, in this case, it adds value to the whole next phase of the care, in the patients' minds.
- 25 A nice looking ticket makes the next phase more like a privilege, and less like a duty.
And it makes the patient feel appreciated.
- 26 A ticket is something special in comparison to a regular paper referral, or no referral at all.

In comparison with Team 5's CAD rendering, the first thing that is striking about this sequence is the explicitness of the photographs. The ticket shown in them is very concrete and detailed. In the first photograph, two hands hold the transfer ticket. In addition to the immediate overall look and feel of the ticket, the spatial relationships present within this photograph provide one with the dimensions and proportions of the ticket. It literally resembles a flight ticket. In the second photograph, the ticket is being handed over to another person. One can see a giving hand and a receiving hand. In the background one can see a table area across which this transaction is taking place. The sequence in which the two photographs are placed reiterates the relationship that was established through the storyboard earlier, as well as makes this relationship visually concrete.

Similar to Team 5's rendering, Team 2's photographs provide grounding for the relationship that was storied prior to this sequence (cooking and casual talk; printing and exchange of ticket) as well as the relationships that proceed from it through the visual arrangement of concrete objects (a worktop, a sofa, a graphic placement of place, date and time). Whereas the storyboard showed a ticket that was nothing but a placeholder within a particular relationship; the photographs specify how the material properties of the ticket really function within this relationship.

In this visual-narrative interplay, narrative weight is given to, grounded in, and carried by the photographs of the ticket that show how this exchange looks like and further specify what graphic elements are placed on the ticket and where. The sequence in which the photographs are placed provides a further grounding for this relationship as an exchange that develops over time, which is now grounded in the concrete graphic design of the ticket as the object of exchange. This narrative weight in the visual-narrative interplay becomes apparent, for instance, in line 21, 'The ticket is a sort of concrete manifestation of the continuity of the patient's care', where the designed ticket in the photograph shows the 'concreteness' that is storied in the narrative, or in line 22, 'The patient might think that I know my next meeting, because it's written on the ticket', where the designed graphic elements of place, date and time provide a grounding for the exact details surrounding this agreement and how this relationship with regards to the ticket develops over time. That is, *in what is storied and designed in service design presentation, the object of storied design seems to capture a relationship that develops over time with regard to the object of design.*

4.7.2 Representations of the object of design

Moving on to the composition of the photograph itself, one can note that this relationship is further grounded in the deliberate framing of the ticket. For instance, one can note the distinct framing that is inherent to the distance and angle from which the photograph of the ticket is taken. This perspective provides narrative weight to a dramatic tension (as perceived through the eyes of Sami) that was also subject to the storyboard. Similar to the storyboard, here too it is not the ticket that is dramatized, but the perspective that is provided by the photographs on a relationship that is developing through and with the ticket over time.

In addition, in the deliberate framing of the photographs, one can also note a possible interaction between how the photograph is framed and how the viewer becomes framed within a particular viewpoint of and on the subject. The total *mise en scène* places the viewer in a certain position and may entice a transposition between the 'intra narrative' and the 'extra narrative' (Rose 2012), between the viewer as an audience and the compositional viewer that is depicted in the photograph, as if one were handling the ticket him- or herself.⁵ The adopted 'eye of the beholder' perspective seems to accentuate this interaction with an audience. These photographs are designed specifically for audience reception where decisions on form, such as distance and angle, are deliberately chosen for this occasion. The way in which the drama is framed and visualized, such as what is included, when it is included and how it is included in the visual form is subject to design. That is, *what one is looking at in the presentation is not the demonstration of an object of design per se, but a deliberate representation of it.*

In this representation of the object of design, the consecutive presentation of the storyboard and the photographs make it seem that the concrete designed ticket in the photograph is meant to be scaled down into the storyboard to provide more detail to the relationship that is depicted in the storyboard, which now becomes also more concrete. This suggests that such representations are mobile and can be mobilized across the presentational pane, where the presentational pane is defined as the total sequence of what is shown and told during the presentation. The framing in the photograph, the concrete designed ticket in the photograph and the storyboard

⁵ Rose (Rose 2012) on p. 68, speaks of how images are designed for audience reception. How the image is framed determines what is included in it. How the image is structured determines focus, angle, etc. All these aspects play a role in audience reception. Kress and van Leeuwen (2001), on p. 114, speak of audience manipulation in the way image perspectives can place the viewer in certain positions.

provide grounding for a superimposed representation that is the result of the order in which the different representations are sequenced in the presentation. An intuitive drawing of such a superimposition may seem inevitable from the perspective of the general human drive to seek organization in both what is seen and heard (Baxandall 1985; Sandelowski 1991).

The objects of storied design and the sequence in which they are storied and designed are not arbitrary. These objects and the way they are sequenced in the presentation seem to draw the object of design together within an increasingly superimposed object that becomes increasingly grounded and specified through and within a process of storied designing. That is, *within service design presentation, the object of design seems to be represented in a sequence of representations, rather than through a presentation of the actual object of design.*

4.7.3 What can be designed with regards to the object of design

In the following sequence (transcript 4.12), Team 2 continues the sequence of the photographs with a systematic demonstration of the graphic elements that are found on the ticket. All context of the ticket, illustrated in the photographs, is removed. What remains is a technical description of the graphic elements on the ticket. These graphic elements pertain to a set of instructions that render parts of a particular transferring process evident. The transfer that is storied is now designed and grounded in a concrete ticket.

TRANSCRIPT 4.12



Image 4.12.1

- [new slide (Image 4.12.1)]
- 27 | So the, if we figured out that when a patient is released from an hospital, going back home after in-patient care can be daunting and confusing time.
- 28 | So, it is good to have all the important information on the ticket, so you can reach them from one place.
- 29 | The patient might have some doubts or some question, the patient can reach both the old care place, and the new care place.
- 30 | Or he might have a crisis, he might feel anxious or something, so the ticket has the emergency contacts.
- 31 | And the patient is or might be in this confusing state of mind, so it's important that he can find all the information in the same place, so if he has millions of brochures, he will totally not find the information he is looking for.
- 32 | [Technological failure in PowerPoint]
Then on the other hand the ticket has the map, and the busses (.)
- 33 | So, patient will go like, now I have to go to my meeting. So, he can again take the ticket and see the basic information of the places, and the busses.

On the front, one can clearly see basic information printed on the ticket, such as names, date, time and place. On the back one can see emergency contact information, a map, an address, and directions for how to get there. One can note a visual-narrative interplay where these graphic elements are given narrative weight within a number of narratives that explain the functional relationship between these graphical elements and particular situations: ‘patient might have some doubts’ (line 29), ‘he might be anxious’ (line 30), or ‘might be in this confusing state of mind’ (line 31).

Both Team 2 and Team 5 draw together relationships that are subject to storied design throughout their presentations of an object of design (a ticket; a cooking premise), through which all these relationships become grounded in the technical detail that is included in the object (a name, a map, a bus schedule, a worktop, a sofa, etc.). Such technical detail is the most physical expression that is put forth in their presentations. When considering their respective presentations as a superimposition of objects of storied design, one can note the following significant development. The handling of technical detail illustrates how both teams ultimately reduced the process of inpatient-outpatient transfer and its worrisome emotional concerns to practical questions that are answered with concrete and physical facts and artefacts (a name, a map, a bus schedule, a worktop, a sofa, etc.). After all, these are the physical aspects that represent that part of the process (Sami’s outlook on transfer; the patient that forgets how to cook during transfer) that Team 2 and Team 5 had active control over. These are the physical aspects that are designable. Both the ticket and the cooking premise, with respect to these physical aspects, and the following explanation of these aspects, that are storied through an act of storied designing, attest to the degree of control that Team 2 and Team 5 had over *what is designable and can be designed* about the process of inpatient-outpatient transfer with regards to an object of design.

In comparison, Team 2’s photographs in the previous sequence, as a representation of a reality in which the ticket is printed, then given to the rehabilitant, refer to a reality that is *not designable* with regards to how the object of design is experienced. It is impossible for Team 2 to design the effect that the ticket has on Sami’s inner world of experience, his exact context, the way he may or may not go to the clinic he is transferred to, the help he may receive or the lack thereof, etc. (Hyysalo 2003; Redström 2006; Hyysalo & Johnson 2015). Likewise, it is impossible for Team 5 to design the way the cooking premise is used or whether its arrangements encourage casual talk, societal appreciation, etc. These are outside Team 2 and Team 5’s control. However, the concrete ticket or the concrete arrangement of the cooking premise, as designed by Team 2 and Team 5, then storied within an act of storied designing, attests to a means to regaining this control by grounding the object of storied design in the physical aspects that are subject to design. *Whereas the subject is central to the object of storied design, only the physical aspects that have a bearing on the subject are truly subject to design* (Redström 2008; Hyysalo & Johnson 2015).

4.8 Framework of storied design

In this chapter, I iteratively developed a number of basic concepts that pertain to my emergent framework of storied design. Each of these concepts indicates a category that has been developed from and grounded in a systematic comparison and analysis of observations drawn from the video recordings of student design presentations, of which two are used here for illustration.

I first established the scope of the framework as limited to *the staged interplay*, through which I identified the act of *storied designing* in showing and telling about a particular object of design. I then focused on the *object of storied design*, which is to establish a relationship within the object of design. I then theorized on *the kind of object* that is subject to a development over time and argued that some form of *storied designing* is necessary in representing such object. I then focused on how the act of storied designing pertains to an *interplay of objects* that results in an object of design that is both storied and designed;

both *dramatized* as a development over time and grounded in concrete objects that provide *narrative weight* in the act of storied designing. I used the narrative weight to pinpoint three grounding aspects that pertain to three lines of inquiry with regards to the object of design in service design presentation: 1) the nature of what is *storied* and *designed* with regards to the object of design as a development over time, 2) how *representations* of the object of design, rather than the actual object of design, are mobilized in support of accounting for the object of design and 3) how the scope of what is storied about the object of design indicates what *can* be designed about it.

As such, the framework establishes further empirical scope and analytical focus that are specific to the phenomenon of storied design. As demonstrated in the analysis, these concepts are both theoretically relevant to the phenomenon of storied design, as well as analytically relevant for the study of the phenomenon. These concepts constitute the theoretical framework of storied design, as much as the framework of concepts constitutes an analytical resource for studying storied design. The concepts are not to be understood as independent, but as interdependent. For instance, the interplay of objects of storied design is interdependent with the narrative weight that provides grounding and allows mobilization across the presentational plane. The resulting framework and the lines of inquiry provide further scope and focus for the empirical chapters that follow. I summarize these basic concepts with descriptions and examples in table 4.1 below.

CONCEPTS	DESCRIPTION	STUDENTS
Staged interplay	To show and explain	<ul style="list-style-type: none"> - Team 5 shows and explains branded cooking premises - Team 2's staged choreography using a storyboard
Object of design	Material constitution of a particular design as final outcome	<ul style="list-style-type: none"> - Inpatient outpatient transfer via ticket - Inpatient outpatient rehabilitation via cooking premise
Object of storied design	Establishes and explains relationship(s)	<ul style="list-style-type: none"> - Team 2's storyboard to explain exchange - Team 2's ticket to explain inscriptions - Team 5's branded cooking premise to explain cooking and 'casual talk'
Interplay of objects in storied design	Establishes relationship(s) to object of storied design as result	<ul style="list-style-type: none"> - Team 5's 'casual talk' is grounded in CAD rendering - Team 2's 'exchange' is grounded in ticket
Kind of object of storied design	Establishes a relationship that develops over time	<ul style="list-style-type: none"> - Team 2's relationship between ticket and transfer - Team 5's relationship between cooking premise and rehabilitation
Dramatic development	A change that occurs over time with regards to the object of design, which is made readily identifiable to a specific audience, may this be in demonstration and/or a story and/or visual representation, as dramatized on stage	<ul style="list-style-type: none"> - Team 5's CAD rendering and the dramatic development in making a sandwich together - Team 2's storyboard and the dramatic development in one's outlook of transfer - Narrative weight is given to rendering of branded cooking premise
Narrative weight in storied design	Allows grounding of object of storied design in concrete facts and artefacts	<ul style="list-style-type: none"> - Narrative weight is given to inscriptions on transfer ticket
What can be designed in the storied designing?	<ul style="list-style-type: none"> - Sequence of objects of storied design - Framing in the object of storied design - Staged choreography of object of storied design 	<ul style="list-style-type: none"> - Team 2's sequence of storyboard, then photographs - Team 2's sequence and dramatic framing in photographs - Team 5's pointing and indicating with CAD rendering of cooking premise - Team 2's staged choreography of storyboard

Table 4.1: Framework of storied design, concepts, descriptions and examples



5 The story of the Super Chamois

In the previous chapter, I formulated a framework of the basic concepts of storied design. This was based on design presentations on service design solutions. The visual representations of these objects of design consisted mainly of 2D images displayed on slides. Next I will use this framework to analyze a demonstration of the Super Chamois. This is an object of design that can be clearly categorized as a concrete product (See figure 5.1). This allows me to further draw out the nature of what is storied and designed with regards to the Super Chamois as pertaining to a specific plot; how an object as concrete as the Super Chamois is subject to this plot within the demonstration; and in what ways this differs from the student service design presentations.

The Super Chamois is an artificial chamois leather that is made of a super absorbent synthetic material. Contrary to the 2D images, the visual representation of the Super Chamois focuses on a single tangible 3D object. As a product, the Super Chamois is often sold with a hard-sell pitch. I looked at five professional pitches and a dozen amateur demonstrations of the Super Chamois.¹ The analysis shown here is limited to one professional pitch that I observed to be typical of a demonstration of the Super Chamois. It includes most of the vignettes and argumentation that I observed in many professional and amateur demonstrations of the Super Chamois.

The obvious tangibility of the Super Chamois provides a counterweight to the service designs presented in the student presentations. This allows me to focus on the *staged interplay* that takes place between the physical properties of the object of design and what is *storied* about it within the demonstration. It shows the *kind of object* in storied design, where the dramatic development is clearly demonstrated in the *relationship of physical properties and narrative weight* is clearly given to and grounded in those physical properties as arranged within a *designated narrative plot* about what these physical properties do, consistently and always over time.

The repetition of a designated narrative plot in the demonstration shows that the Super Chamois becomes an object *for* storied design that allows a *dramatic development* to be *mobilized* and *repeated* across the demonstrational pane. I conclude this chapter with a comparison with the student presentations and an elaboration on the relationships between the designated narrative plot and some of the basic concepts of storied design. I end this chapter with an updated framework of storied design.

¹ The video in question can be found here: <https://www.youtube.com/watch?v=v7rjd30t5aI>. On YouTube, I examined five videos where the Super Chamois or other variants such as ShamWow were pitched by different pitchmen. Each pitch featured the same kinds of vignettes. This gives reason to believe that the form of pitching the Super Chamois has been formalized. The vignettes seem to be consistently the same throughout the various pitches I have seen. Even the order in which the vignettes are performed is the same. This form can be seen to have been perfected by notable pitchmen, such as Vince Offer, the 'ShamWow guy': https://www.youtube.com/watch?v=QwRISkV_B8. Further indication of formalization in the Super Chamois genre can be seen in amateur demonstrations that also include the same vignettes as in Super Chamois ads. These amateur productions exist in great numbers. Yet, each amateur production includes exactly the same vignettes and in the same order (framed as positive as well as negative).



Figure 5.1: Pitchman presents the Super Chamois, a cloth made of superabsorbent material

5.1 'It actually absorbs it all' – story and demonstration

The following sequence shows an opening of a live performance in which a pitchman pitches the Super Chamois. The pitchman opens the video by squeezing a soaked sponge, spilling water over a table. I use this sequence as a starting point to explicate the practical implications of comparing this presentation with the student material. I then proceed to analyze the sequence in terms of how the Super Chamois serves as an object of storied design.



Image 5.1.1



Image 5.1.2

1 | [Squeezes a soaked sponge across table area. Water spills over the table (Image 5.1.1)]
 | Wash your car, your truck, your van, now.

2 | Now you know, if you ever used a skin, and | [pushes Super Chamois across table (Image 5.1.2)]
 | I did this with a skin,



Image 5.1.3



Image 5.1.4

by this time of the day | [gestures arms (Image 5.1.3)] | [re-spreads water across table (Image 5.1.4)]
 | nobody would be here. Because | all the skin does is push. Works like a
 squeegee. Can't absorb anything.



Image 5.1.5



Image 5.1.6

3 | [Holds Super Chamois in both hands and shows it to the audience (Image 5.1.5)]
 | My chamois absorbs.

| [held by two hands at corners of chamois, drags across table in a zigzag pattern (Image 5.1.6)]
 | You go right across the car, truck, van, it actually absorbs it all.

This is clearly a sales pitch intended to sell the product. This makes it different from the student presentations. Unlike the students, the Super Chamois pitchman did not design the product. Furthermore, one may assume from how the Super Chamois is demonstrated that the pitchman rehearsed and repeated this pitch quite a number of times, more than in the case of the student presentations. Yet, as I will show, these differences neither interfere with my analytical focus on the object of storied design nor negate the point that a form of storied designing is, nonetheless, taking place.

At the outset, one can immediately note the staged interplay within the sequence. For example, in a single sequence, such as the one where the pitchman utters, 'Wash your car, your truck, your van, now', one can note interplay between the narrative, the gesture of wringing out the sponge, the sponge itself, the water, and the table where the water ends up. Rather than slides, the pitchman employs physical artefacts. Methodologically, I must rely on the various physical artefacts that come and go within

the performance as key indicators of sequence breaks. At the same time, it is in fact this difference in materiality that allows me to show how the object of storied design involves a physical relationship and how this relationship is subject to a development over time during the demonstration.

The table is now wet. When he says, 'Wash your car, your truck, your van' (line 1), the pitchman pretends to be one of the possible target customers, who occasionally wash their car, truck or van.² By uttering these words, the pitchman also pretends that the table surface is the surface of a car: 'You go right across the car, truck, van. It actually absorbs it all' (line 3). Furthermore, the pitchman is clearly dramatizing a particular situation by acting out a storyboard-like form. Key physical artefacts and matter, such as the table and the water, provide narrative weight to a dramatized situation that becomes easily recognizable as the washing of a car: The car is wet and needs to be dried. This situation allows the pitchman to establish a relationship to the Super Chamois, where further narrative weight is given to and grounded in the Super Chamois by demonstrating a *dramatic development* in what it does: 'It actually absorbs it all' (line 3).

When it comes to what it *does*, words seem to be inadequate for describing the action and are thus 'filled in' visually by demonstrating what happens physically as a result of using the Super Chamois. In turn, what it *does* is *demonstrated* by how the physical configuration develops. One may not readily identify with this super capacity in the Super Chamois as such, until one identifies with the dramatic development (Hyysalo 2003; Redström 2006). It is not the Super Chamois that is dramatized, but the situation in which the Super Chamois is used. The dramatization of this development, such as when washing a car, is necessary if one is to identify with the Super Chamois by means of its function-in-use.

The development in the physical configuration, such as the table changing from wet to dry, become essential in evidencing and grounding this dramatic change in the developing situation as a consequence of the application of the Super Chamois. The table and water play an active part in the demonstration, as the narrative weight is grounded in the evident consequences as a result of this application. The dried table surface leaves no room for ambiguity in interpretation, and requires no further explanation, regarding what the Super Chamois *has done*, other than the confirming words, 'It actually absorbs it all'.

One can clearly note that the whole situation is framed with a view to illustrating the Super Chamois as the object of design. The table, the water and the sponge are all presented with a view to framing the Super Chamois in a certain way. This is the pitchman's doing. Furthermore, this framing is clearly physical. Physical artefacts and matter are displaced in order to rehearse a typical drama of washing cars that draws a relationship between the physical properties of the Super Chamois and the dramatic development in what these properties *do*. In demonstrating what it does, narrative weight is clearly given to and grounded in the physical properties of the Super Chamois.

5.2 *The Super Chamois as an object of storied design*

Whereas the previous sequence dramatized an everyday usage scenario of the Super Chamois, in the next sequence the pitchman dramatizes a different kind of scenario, a more 'empirical' examination of the Super Chamois. The consecutive organization of the previous sequence and the next illustrates a relational form that is grounded in the criticality of how the two sequences are placed in sequence with one another. A close scrutiny of the dramatic development in what happens when using the Super Chamois in the consecutive organization of the two sequences shows a narrative order that is inherent to what the Super Chamois does. To show what the Super Chamois does is subject to storied design, as much as its storied designing is subject to what it does, always will do, and in this particular order.

² By saying these words, the pitchman is not just reporting on an event of washing a car, truck or van, but he is doing, or ritualizing, a pretending act. He is pretending to be someone else and he pretends the objects in front of him being something else. It is a performative utterance (Austin 1975), in which the pitchman not only says that he is washing the car, but also exhibits the actions that indicate that he is pretending to wash the car ('I'm pretending to be washing a car, and pretending that the table is a car, and pretending the water is the washing water that needs to be dried').



Image 5.2.1

4 | [Folds chamois (Image 5.2.1)]
| Seventy times its weight



Image 5.2.2

| [takes a glass bowl (Image 5.2.2)]
| of liquid.



Image 5.2.3

5 | [Squeezes chamois above glass bowl (Image 5.2.3)]
| it always dries all.



Image 5.2.4

5 | [Water goes into glass bowl (Image 5.2.4)]
| Now, look at the water I just absorbed.

The shift between scene and sequence is emphasized by the introduction of the glass bowl. This is clearly not an object that is used in washing cars. Rather, the glass bowl indicates a different scene, where the pitchman explains what the Super Chamois does in terms of one specific physical property. The ‘empiricism’ of the scene is further dramatized when he quantifies the effect: ‘Seventy times the weight of liquid’ (line 4). This claim is then immediately followed with a verbal proposition: ‘it always dries all’ (line 4). Interplay is clearly visible between the claim, the dramatic wringing of the Super Chamois, and an equally dramatic purported quantity of water released as a result of that wringing.

In isolating the elements of drama, one can note the narrative weight that is given to the glass bowl and its specific physical properties, in terms of grounding the dramatic tension within the scene. The shape of the glass bowl, and the fact that it is made of transparent glass, allows the pitchman to isolate the specific physical property of the Super Chamois and to demonstrate the dramatic development in terms of the quantity of water absorbed. The verbal proposition that ‘it always dries all’ (line 4) is complemented by the physical event of visibly absorbing the water with the Super Chamois, retaining it, and then squeezing it out: ‘Now, look at the water I just absorbed’ (line 5). Again, the demonstration leaves no ambiguity about what happened and requires no further explanation.

When comparing the two sequences of two essentially different scenes, one can note that in both scenes, the Super Chamois remains the Super Chamois, whereas the other physical matter in the staged interplay, such as the water, are assigned different meanings. It is the persistent presence of the Super Chamois that allows for one scene to segue into the next. However, the physical constitution of the Super Chamois does not remain the same throughout. Whereas the previous sequence showcased what the Super Chamois does (absorption of water), this sequence shows what the Super Chamois has done (wringing out the water). The inherent intermediate result now embodied in the Super Chamois plus the water that is contained within it allows the pitchman to segue from one scene to the next (retention of water).

This shows the critical significance of the order in which the two sequences are organized in demonstrating the dramatic development in how the relationships of absorption of water, retention of water and release of water take place over time. This

order in scenes is not arbitrary. The visual continuity, in which the Super Chamois moves from one scene to the next, indicates that the two scenes are designed to follow one after the other. Whereas the previous sequence showed the framing of the scene as subject to design, this sequence, as a continuation of the previous sequence, shows that the order of scenes itself is also subject to design. Yet, it is a design that is determined by the physical properties of the Super Chamois. Which scene is to follow which is determined by the way these relationships work, as much as the way these relationships work determines the order in which these relationships can be storied and designed together. The Super Chamois is *subject to storied designing*. This is what the Super Chamois *does* and always *will do* when in contact with liquid. Yet, in demonstrating what it does, *it* can only be *storied*. In order to explain *it*, some form of narrative plot needs to be designated in order to demonstrate a relationship with regards to *what is to be explained about it* in the first place.

5.3 The designated narrative plot as the object for storied design

In the following sequence (Transcript 5.3), the configuration in which the 'empirical' scene ended (water in bowl, Super Chamois wrung out), then allows for a visual continuity into the next scene, in which the pitchman dramatizes another everyday scenario. This sequence allows me to illustrate how a designated narrative plot allows the pitchman to mobilize and repeat a dramatic development across the demonstrational pane.

TRANSCRIPT 5.3



Image 5.3.1

6 | [puts Super Chamois back into the glass bowl of remaining water (Image 5.3.1)]
 Look, folded, | right at the bottom of the freezer, refrigerator, floorboard,



Image 5.3.2

| [pushes super chamois in glass bowl (Image 5.3.2)]
 | wherever there is liquid,



Image 5.3.3

| [points at dropping water level (Image 5.3.3)]
 | look, look, sucks it up like a vacuum.



Image 5.3.4

| [wrings out Super Chamois (Image 5.3.4)]
 it holds the water in. | Seventy times its weight.

One can clearly note the extent to which both framing and sequence are subject to design. The glass bowl, previously dramatized as an indicator of quantity and measure, is now dramatized as the bottom of a freezer. The remaining water in the bowl, previously dramatized as ‘seventy times its weight’, is now transposed and dramatized as liquid at the bottom of a freezer. All previously employed artefacts and matter on display transform from one narrative component to another with the most natural ease, except for the Super Chamois. The Super Chamois remains the Super Chamois.

Here, too, the verbal proposition that the Super Chamois ‘sucks it up like a vacuum’ is complemented by demonstrating how the water level drops. The quantifying words ‘seventy times the weight’ give narrative weight to the water that is dramatically wrung from the Super Chamois into the glass bowl for physical effect. This sequence illustrates how the designated narrative plot allows for a dramatic development to be mobilized across the demonstrational pane, where the relationships of absorption, retention and release are repeatedly storied and designed in various scenes with the Super Chamois as an object of storied design.

While the subject of drama can change dramatically, the demonstration of the Super Chamois always follows a single designated narrative plot: absorption – retention – release – absorption – retention – release, and so on. With the knowledge of this single designated narrative plot, one gets the impression that the pitchman could go on like this forever (which I believe is, effectively, what his job consists of as a pitchman of the Super Chamois).³ The Super Chamois might be great as a product for those who want to wash their cars, but it is even greater as a means of enabling this pitchman to perform a seamless delivery of various scenes and to do so repeatedly.

As far as the demonstration is concerned, the practical value of the Super Chamois, as an object of storied design, other than in providing narrative weight for various scenes, is first and foremost reflected in the seamless delivery of scenes that it allows for within the demonstration, where the designated narrative plot functions as an object *for* storied design. Interestingly, although the Super Chamois, as the object of design, does not in itself explain what it does, this explanation remains lodged *within it*, as within a single fixed designated narrative plot. It is this fixed narrative plot of absorption, retention and release, as an object *for* storied design, that allows the pitchman to mobilize a dramatic development with the Super Chamois as an object of storied design. This is done repeatedly within and across the demonstrational pane. That is, *during the demonstration, the object of storied design becomes designated in a narrative plot, as much as this narrative plot designates an object for storied design.*⁴

It must be noted that the Super Chamois consists of many more relationships of physical properties than the one focused on here. The designated narrative plot also indicates a narrative weight in what is storied about the object of design. In this case, the narrative weight is mainly on absorption, but also on retention and release.⁵ The pitchman insists on it. Other relationships in the physical properties are also referred to, but are given less narrative weight. In fact, many more properties, such as shape, colour and thickness, have less significance in the one designated narrative plot, although these do contribute to the overall role of the Super Chamois within the demonstration. That said, imagine any other narrative plot, and one may consider other potential dramatic developments. For instance, one could imagine using the Super Chamois as a flag. This would indicate a different narrative plot, and hence allow for a different demonstration as a result of this difference.

5.4 Mobilizing the dramatic development across the demonstrational pane

Next, I further illustrate how this designated narrative plot allows for repetition, nuance and variation in drama, where the pitchman no longer needs to explain what the Super Chamois does, but only further connect, diversify, explain, suggest and facilitate extrapolation of its use.

③ This particular narrative plot is confirmed by the repetition found in the other pitches and demonstrations of the Super Chamois that I have looked at, both professional and amateur.

④ The designated narrative plot emerged here as specific to the empirical scope and focus of this study. The concept as described, however, may share commonalities with existing concepts in design. Leaving aside the contention on how objects are invested with intentionality, the designated narrative plot may correspond with the concept of ‘object function’ and ‘object behavior’ (Houkes et al. 2002; Lloyd & Snelders 2003; Redström 2006; Vermaas & Houkes 2006; Crilly et al. 2008; Crilly 2010) and the relationship between ‘function’ and ‘behavior’ (Rosenman & Cero 1998).

⑤ Additional narrative weight that is given to retention in one sequence has been omitted from this study. In this sequence the pitchman demonstrates the ability of the Super Chamois to retain the water, which allows the Super Chamois to be carried through the home without dripping.

TRANSCRIPT 5.4



Image 5.4.1



Image 5.4.2

7 | [places piece of carpet on table (Image 5.4.1)]
Then you take the little monster, | uh youngsters, to the Burger King,

| [places a litre bottle of diet coke on table next to carpet (Image 5.4.2)]
| the McDonald's. You buy 'em Coca Cola, Pepsi Cola,



Image 5.4.3



Image 5.4.4

| [points at imaginary point in distance (Image 5.4.3)]
you ride | down the streets in a foxhole, uh pothole, then you hear mommy daddy, look,

| [picks up bottle of Coke, pours its contents on carpet (Image 5.4.4)]
| on the rug, on the seat, on the kid, now daddy is mad enough he wanna choke



Image 5.4.5



Image 5.4.6

.....| [gestures hands, as if choking bottle at neck (Image 5.4.5)]
| the little brat, uh kid. Huh! Get that on the velour?

| [points at carpet on table (Image 5.4.6)]
| Forget!



Image 5.4.7



Image 5.4.8

8 | [pushes finger deep into spot where spill is (Image 5.4.7)] | [lifts carpet up (Image 5.4.8)]
Now, everybody knows | that's bad. Right? This is what you see. But what about | what you don't see.



Image 5.4.9

| [Whilst dripping, this reveals that Coke has soaked through the carpet onto the table area (Image 5.4.9)]
 | Under the rug. Now that's worse.



Image 5.4.10

9 And milk, if milk dries up in the padding, move, quick, oh-oh, | [pinches nose with two fingers (Image 5.4.10)]
 | you talk about stink. You can't get rid of it.

And in your car, as soon as the sun hits, you need a gas mask. | [unfolds Super Chamois (Image 5.4.11)]
 |



Image 5.4.11



Image 5.4.12

10 | [Holds Super Chamois by two hands and shows it to audience, then lays it over spill area (Image 5.4.12)]
 | Now watch, I'm gonna open it up, the minute I touch it,

| [presses hand on Super Chamois, on the spill area (Image 5.4.12)] | [folds Super Chamois once]
 | it absorbs. Fold it. | It absorbs.

Now the thicker you fold it, | [folds twice] | [folds thrice]
 | the more it's gonna absorb. |



Image 5.4.13



Image 5.4.14

11 I don't care what you spill, | [Presses both hands continuously on Super Chamois (Image 5.4.13)]
 Kool-Aid, grape juice - | beer, wine, gin, Pepsi Cola, Coca Cola, coffee, tea or milk,

12 you got a dog at home? He's on time, you're not? | [pauses, looks meaningfully at the audience----]
 | Uhuh...

| then continues pressing movements]
 | Hoover went all over the rug. It's like having a loose moose in the house.

13 Now I see some of the looks. You don't like the idea of using your hands with the dog -

| [looks into the audience----] | slams his hand on chamois (Image 5.4.14)] | [nods at audience]
 | no? Then you | step on it. Not the dog! | The chamois, okay?

The introduction of the piece of carpet indicates a different scene. The framing in the scene is clearly designed, which becomes obvious in how the piece of carpet (instead of the glass bowl), followed by the bottle of Coke (instead of water), provide the pitchman with additional narrative components to further dramatize a number of situations. These situations consist of 'kids spilling drinks on back seats', 'daddy getting frustrated', 'folding demonstrations', 'carpets and drinks spilling', including 'dogs peeing on rugs': 'it's like having a loose moose in the house' (line 12).

With each utterance, then, the pitchman transforms the initial configuration into something else. The Coke bottle becomes 'the youngster being choked'; the piece of carpet becomes 'the backseat velour'; and later, 'the rug at home', where anyone, anything, can cause a spill, even 'the dog'. This sequence illustrates the wide range of scenes in which the persistent presence of the piece of carpet and the Coke spillage allows for these seemingly arbitrary scenes of kids and dogs to segue from one into the next, forming a chain of scenes of various nuances to develop.

However, in this hustle and bustle, one seems to be looking at a piece of carpet, rather than the Super Chamois. In all the various nuances of the situation, one seems to have lost sight of the Super Chamois for a while. Indeed, the emphasis is no longer on the Super Chamois, but on the mounting fearful situations that may result from unwanted spillage. This shift in emphasis is propounded in the rapid snowballing of various narratives that seem to have no beginning or end. Fear is highlighted by the line, 'This is what you see, but what about what you don't see', which itself is soon after evidenced by the dripping Coke that brings this fearful scenario to life. Consequently, the visible dried area left behind as result of the Super Chamois is that much more of a relief.

The designated narrative plot as an object for storied design allows the pitchman to once more mobilize a dramatic development across the demonstrational pane. The designated narrative plot allows for a dramatic development to be mobilized through various dramas presented in the staged scenes. However, once the Super Chamois comes in, one finds a condensed version of the designated narrative plot. The pitchman does not end up wringing the Super Chamois and showing the Coke it just absorbed (but he could have had, if one were to ask him to). It appears that the last bit of the designated narrative plot has been phased out. It seems that the association in the designated narrative plot between absorption, retention and release, which has already been established by means of repetition, is complete in such an evident way that the last bit no longer needs to be performed. The dramatic development that is mobilized becomes partly implicit in the drama. The pitchman no longer needs to explain it; rather, the audience may anticipate it. That is, *in so far as the designated narrative plot, as an object for storied design, allows for a dramatic development to be mobilized across the demonstrational pane, the designated narrative plot can become partially implicit in the object of storied design in the repeated storied designing of it.* What remains is not the question of how the Super Chamois works exactly, but whether your dog has done its business on the rug at home while you were listening to this pitchman.

5.5 *The designated narrative plot in the representation*

In analyzing what is storied and designed about the Super Chamois allows me to show the object of storied design as involving a *designated narrative* plot that captures a specific relationship that develops over time and functions as an object *for* storied design. This function relates to three basic concepts of storied design, of which the concept of dramatic development is critical. I will elaborate on this function by comparing the pitchman's demonstration and the student presentations.

In the demonstration of the Super Chamois, the designated narrative plot identifies 1) *the kind of object of storied design*, where 2) *the narrative weight* is clearly given to and grounded in a physical relationship of material properties. The designation of this narrative plot is critical,

because it allows 3) *a dramatic development* to be storied and demonstrated about the Super Chamois, such as with the use of water and a glass bowl in 'an empirical demonstration'. The designated narrative plot functions as an object for storied design because it allows the pitchman to *mobilize* and *repeat* a dramatic development across the demonstrational pane, such as from 'an empirical demonstration' to 'liquid at the bottom of a freezer'.

In comparison, one can observe designated narrative plots in the two students' presentations as well when considering the specific relationships that are storied and designed during their respective presentations. These narrative plots also allow for a dramatic development to be mobilized and repeated across the presentational pane. In the case of Team 2's 'ticket', 'printing and exchanging a ticket' allows a dramatic development to be mobilized, where the narrative weight is given to a storyboard about Sami and a series of photographs of the ticket. In the case of Team 5's 'branded cooking premises', 'cooking and casual talk' allow a dramatic development to be mobilized, where the narrative weight is given to a molecule diagram and a CAD rendering of the premises.

It becomes clear, however, that by means of their designated narrative plots, 1) *the kind of object* that is subject to a development over time in the student presentations is not the same, 2) *the narrative weight* is grounded differently, and 3) *the dramatic development* is mobilized in a different way. Whereas the dramatic development in what the Super Chamois does is designated within a *narrative plot*, where *the narrative weight* is grounded in the object of design (absorption, retention and release), *the dramatic development* in what the 'ticket' and the 'premises' do are designated in *narrative plots*, where the narrative weights are grounded in *representations* of the object of design. The kind of object that is subject to storied design in the student presentations *looks* different because the *dramatic development* that is mobilized is not demonstrated but *represented*.

In considering the *kind of object* that the student presentations focus on, it may even seem unlikely that it can be demonstrated within a presentation. Where the pitchman's *object of design* consists of the Super Chamois, the students' *object of design* consists of the whole 'process of transfer via a ticket' or the whole 'process of rehabilitation via branded cooking premises'. The *kind of object* that the students are concerned with pertains to a *designated narrative plot*, where the scale of *narrative weight* is given to their respective representations of an object (a ticket; premises) as well as various circumstances that extend beyond their representations of an object (an email, a phone call, a meeting, a ticket, a ticket printer/reader, a map, a bus schedule, emergency numbers, a brand, premises, a kitchen block, cooking, casual talk, a sandwich, a sofa, a doctor, an entrance fee, opening times, a volunteer, etc.). Considering this, it may seem that the *kind of object* in Team 2's ticket and Team 5's branded cooking premises pertains to a *designated narrative plot* that does not allow for a *narrative weight* to be grounded in the demonstration in the first place. *That is, in service design presentations, the kind of object seems to remain as partly represented.*⁶

For this reason, the dramatic development is also mobilized differently. The designated narrative plot used for the Super Chamois allows the pitchman to mobilize a dramatic development with the *object of design* itself. The pitchman can bring in water and a glass bowl and demonstrate a dramatic development with the Super Chamois. Team 2 cannot show how 'printing and exchanging a ticket' changes the transfer process within the presentation. Team 5 cannot show how 'cooking and casual talk' changes the transfer process within the presentation.⁷ The student representations of a storyboard, a series of photographs of a ticket, the ticket itself, a diagram, a CAD rendering, and so on, and what is verbalized about them are all that are mobilized about a dramatic development. That is, in service design presentations, the dramatic development seems to be represented as much as they remain suggested through objects of storied design.

The *kind of object* of concern in the student presentations is different because the scale in which the *narrative weight* is designated within a narrative plot is different. Yet, these designated narrative plots seem to continue to function as objects *for* storied design that allow a dramatic development to be mobilized across the presentational pane

● Naturally there is a difference in that the Super Chamois is a finished product, whereas in the student presentations only the ticket is finished. But this is not where the key difference lies. In chapters 6 and 7 I show how professionals cannot demonstrate their finished service designs either.

● As far as what is shown with the Super Chamois, the pitchman could have brought in a car (or the hood of a car, or the door of the car, etc.) to serve as a context to show a dramatic development as result of the Super Chamois. It would be unlikely that a similar change could be done to the ticket and the premises. It is unlikely that Team 2 would bring in 'Sami' or some other rehabilitant like him, print the ticket and have a doctor hand it over to him/her. It is unlikely that Team 5 would bring a volunteer and a rehabilitant onto the cooking premises and have them prepare a sandwich together while having a conversation. Even if they did, the dramatic development still cannot be demonstrated, because the designated narrative plot regarding the function of their objects does not allow a narrative weight to be shown (an email, a phone call, a meeting, a ticket, a ticket printer/reader, a map, a bus schedule, emergency numbers, a brand, premises, a kitchen block, cooking, casual talk, a sandwich, a sofa, a doctor, an entrance fee, opening times, a volunteer, fundraising, etc.). In service design forms of evidencing of service for presentation can be done with figures, statistics, statements (et cetera) of service-in-use, but these too rely not on demonstration with the designed object but with further representations.

through representation. *That is, in service design presentations, the designated narrative plot functions as an object for storied design because it allows representations of a dramatic development to be mobilized across the presentational pane.*

Below I summarize the framework of storied design (table 5.1) and the comparison between different objects of design (table 5.2).

CONCEPTS	DESCRIPTION	STUDENTS	PITCHMAN
Staged interplay	To show and explain	<ul style="list-style-type: none"> - Team 5 shows and explains branded cooking premises - Team 2's staged choreography using a storyboard 	<ul style="list-style-type: none"> - Pitchman demonstrates Super Chamois and explains that it absorbs "seventy times its weight"
Object of design	Material constitution of a particular design as final outcome	<ul style="list-style-type: none"> - Inpatient outpatient transfer via ticket - Inpatient outpatient rehabilitation via cooking premise 	Super Chamois
Object of storied design	Establishes and explains relationship(s)	<ul style="list-style-type: none"> - Team 2's storyboard to explain exchange - Team 2's ticket to explain inscriptions - Team 5's branded cooking premise to explain cooking and 'casual talk' 	<ul style="list-style-type: none"> - Super Chamois to explain absorption, retention and release
Interplay of objects in storied design	Establishes relationship(s) to object of storied design as result	<ul style="list-style-type: none"> - Team 5's 'casual talk' is grounded in CAD rendering - Team 2's 'exchange' is grounded in ticket - Team 2's relationship between ticket and transfer 	<ul style="list-style-type: none"> - Absorption, retention and release are grounded in Super Chamois
Kind of object of storied design	Establishes a relationship that develops over time	<ul style="list-style-type: none"> - Team 5's relationship between cooking premise and rehabilitation 	<ul style="list-style-type: none"> - Relationship in physical object
Dramatic development	A change that occurs over time with regards to the object of design, which is made readily identifiable to a specific audience, may this be in demonstration and/or a story and/or visual representation, as dramatized on stage	<ul style="list-style-type: none"> - Team 5's CAD rendering and the dramatic development in making a sandwich together - Team 2's storyboard and the dramatic development in one's outlook of transfer 	<ul style="list-style-type: none"> - Pitchman shows how Super Chamois absorbs, retains, and then releases water
Narrative weight in storied design	Allows grounding of object of storied design in concrete facts and artefacts	<ul style="list-style-type: none"> - Narrative weight is given to rendering of branded cooking premise - Narrative weight is given to inscriptions on transfer ticket 	<ul style="list-style-type: none"> - Narrative weight is given to Super Chamois
Designated narrative plot	Specific narrative of relationship(s) that identifies 1) the kind of object, 2) the scale of narrative weight that is given and 3) allows for a dramatic development to be mobilized across presentational pane	<ul style="list-style-type: none"> - Team 2's 'when exchanging a transfer ticket helps in rehabilitation' is mobilized repeatedly - Team 5's 'when cooking and casual talking helps in rehabilitation' is mobilized repeatedly 	<ul style="list-style-type: none"> - 'Absorption, retention and release' is mobilized repeatedly
What can be designed in the storied designing?	<ul style="list-style-type: none"> - Sequence of objects of storied design - Framing in the object of storied design - Staged choreography of object of storied design 	<ul style="list-style-type: none"> - Team 2's sequence of storyboard, then photographs - Team 2's sequence and dramatic framing in photographs - Team 5's pointing and indicating with CAD rendering of cooking premise - Team 2's staged choreography of storyboard 	<ul style="list-style-type: none"> - Sequenced as determined by material property of Super Chamois - The table, water and glass bowl arrangement within the scene

Table 5.1: Framework of storied design including the new category of the designated narrative plot

	PITCHMAN	TEAM 2	TEAM 5
Object of design	Super Chamois	Inpatient outpatient transfer via transfer ticket	Inpatient outpatient rehabilitation via cooking premise
Object of storied design	Super Chamois	Transfer ticket	Branded cooking premise
Designated narrative plot	Absorption, retention, release	When exchanging a transfer ticket helps in rehabilitation	When cooking and casual talking helps in rehabilitation
Kind of object	Relationship contained in discrete object	Relationship contained in transfer process	Relationship contained in rehabilitation process
Narrative weight	Material property of Super Chamois	Logistical facts and artefacts: ticket, date/time, map, bus schedule, etc.	Catering-specific facts and artefacts: premise, kitchen table, sandwich, sofa, opening times, entrance fees, etc.
Dramatic development	Demonstrated	Represented	Represented

Table 5.2: Comparison of different objects of storied design



6 The story of a medical service design

The student presentations allowed me to establish a basic framework for storied design. I used the basic framework to analyze a demonstration of the Super Chamois. A comparison between the two allowed me to show how in both cases a *designated narrative plot* allows for a *dramatic development* to be mobilized across the presentational pane, and whether this is demonstrated or represented. It also allowed me to show the difference in the *kind of object* that lies in the scale in which *narrative weight* is designated within a narrative plot. Both the demonstration of the Super Chamois and the student service designs will continue to provide cases to compare with the professional service design presentations that follow next.

In this chapter, I analyze a presentation that concerns the design of an interior for a healthcare centre: a servicescape. I show how a *narrative plot* needs to be designated and given form in the first place in order to allow a *dramatic development* to be mobilized across the presentational pane. I show how the designation of a narrative plot pertains to a *process of objectification*, where the *narrative weight* shifts unidirectionally and becomes gradually and increasingly grounded within and through a sequence of concrete methods of representation as *objects of storied design*. I theoretically consolidate the following concepts of storied design in the observation of this process, which allows me to ground the object of design in the service design presentation. I show that in this process of *objectification* (1) a *narrative plot* is designated for (2) a *kind of object* that is increasingly given form, enabling (3) a *dramatic development* to be mobilized through (4) an *interplay of objects*, where (5) a *narrative weight* ends in (6) an object of design that is both storied and designed: *a storied design*. In doing so, I answer to the second inquiry suggested in chapter 4 by showing *how* the object of design is represented, rather than demonstrated in service design presentation, and the process that is involved in this.

The design presentation was given by Juha Kronqvist. Juha is a Senior Service Designer at Hellon. Formerly called Diagonal, Hellon is a Helsinki-based design agency that specializes in creating customer experiences – service design – for a variety of clients such as Nordea Bank, KONE, ABB and Teliasonera. The company has won numerous awards, with Juha taking home a number of them. The following presentation created for Fimlab won the Service Design Achievement of the Year 2013. The presentation presents the design of a servicescape for Fimlab facilities and can be found here: https://www.youtube.com/watch?v=YtnkifBRX_U.



Figure 6.1: Juha presents the design of a medical service in healthcare

6.1 ‘So, when thinking about healthcare’ – story and suggestion

It is interesting to compare the following two transcripts with the pitchman's demonstration of the Super Chamois, because they show the *kind of object* that cannot be demonstrated, but can only be suggested within the presentation. In the first transcript, Juha describes and shows what he thinks is a general situation in healthcare.

A servicescape for ideal healthcare experiences?



Image 6.1.1

1 || [New slide (Image 6.1.1)]
 | [brief glance at laptop]
 ||| So, when thinking about healthcare, this is often this kind of a servicescape we see.



Image 6.1.2

2 | [looks at slide---- then at floor (Image 6.1.2)]
 | And uh,



Image 6.1.3

| [then at audience] | [gestures hand--- (Image 6.1.3)]
 | these are | not kind of arbitrary results.



Image 6.1.4

3 They have | puts hand back in pocket (Image 6.1.4 and 6.1.5)
 | a background of why we have entered here.



Image 6.1.5

| [looks at slide----]

4 And | looks at floor | looks pensively
 | I think, servicescape is | one of the biggest differentiators in healthcare.

5 Always when I work with people in healthcare, these are the most hardworking, motivated and talented people.



Image 6.1.6

6 It's not, uh, I think, but they have to | [gestures hand---- (Image 6.1.6)]
 | work in environments



Image 6.1.7

| lowers head to one side (Image 6.1.7)
 | that kind of assign them



Image 6.1.8

sort of kind of roles | brief glance at slide | gestures hand (Image 6.1.8) | [brief glance at laptop]
 | and also guide their | behaviours towards certain type. |

The photographs provide the audience with a glimpse of what a particular healthcare centre looks like. To some extent these photographs provide the presenter with narrative weight by representing the look and feel of the issue in what is referred to as a ‘servicescape for ideal healthcare experiences’. However, the presenter is not specific about what it is and how these photographs represent it. One can note the staged interplay in the references made in lines (1), (2) and (3) as ‘this’, ‘these’ and ‘they’, but the further details present in the photographs are left unexplained. This indicates that these photographs are to be taken as a whole, to speak for themselves and to give an overall impression of what healthcare centres tend to look like in general. This generalizing tone continues in the following sequence.

TRANSCRIPT 6.2

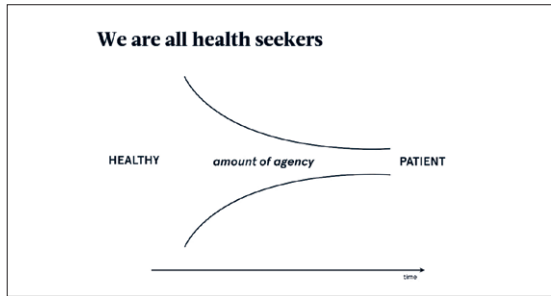


Image 6.2.1

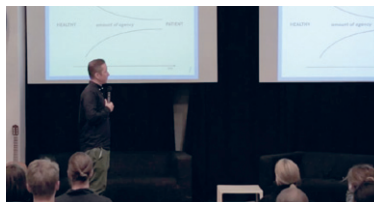


Image 6.2.2

7 | [New slide (Image 6.2.1)]
 | This is how a patient's role goes into the,
 8 | [speaks at increasing speed as if en passant]
 | when you become sick and you enter a healthcare facility,
 9 your amount of agency goes down. | [brief glance at floor]
 10 This is partly a big problem within healthcare, is, that | [brief glance at slide (Image 6.2.2)]
 | you kind of,



Image 6.2.3

11 it is designed as, | [gestures hand--- (Image 6.2.3) | gestures hand (Image 6.2.4)
 | based on a delivery model, not as a | collaborative model.

12 So all the | [gestures hand--- | gesture
 | design decisions are, most of them are made, listening to the | healthcare

staff. They | continuous hand gestures | gestures hand|
 | are the experts. They know what should be | done.



Image 6.2.4



Image 6.2.5

13 And when | [brief glance at slide and points (Image 6.2.5) | [gestures arm--- (Image 6.2.6)
 | you enter a healthcare facility, often your | clothes change,

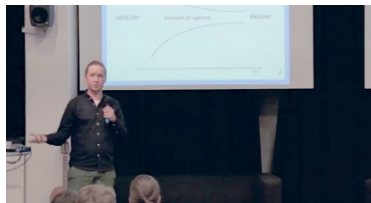


Image 6.2.6



Image 6.2.7

| gestures arm (Image 6.2.7)
 | you lose your individuality, you are put to



Image 6.2.8

| gestures arm cont. | finger pointing
 | lie down in a bed, and if you start | moving

from the bed, it might actually create a | cont. gesture with finger (Image 6.2.8)
 | problem for the healthcare.



Image 6.2.9

14 So, the patient | [gestures fingers--- (Image 6.2.9)
 | is a very narrow term in healthcare. But what I am arguing is that,
 if you study the patient, you might actually find the key,



Image 6.2.10

| cont. to keep the distance between fingers until clicking next slide (Image 6.2.10)
 | how to design the new healthcare, much better healthcare.

In uttering these words, the presenter is not reporting on a specific thought he had. What he is *doing* (Austin 1975) is requesting the audience to think about their own experiences with healthcare. It is important to note that this request proceeds by appealing to the audience in a verbal manner. Hence, in spite of the visual presence of the photographs, these opening words indicate that the following sequence is more of a thought experiment rather than a materially workable exercise involving the photographs that are present in the slide. In other words, the opening words of ‘So, when *thinking* about healthcare’ indicate an exercise that is likely to proceed predominantly in a verbal manner, not only because of the thematic abstraction in the contents of the stories that follow, but also because the presenter explicitly requests us to *do/think* so.

In light of this, the interpretation of the photographs, as the referent of this verbal elaboration, requires the audience members to have at least some personal experience of hospital environments. The presenter's opening words, coupled with the set of photographs, assume that members of the audience are in possession of this experience (otherwise the photographs would have played a much more informative role within the presentation by providing specific detail for elaboration on why an experience is this or that; however, this does not seem to happen). This gives the impression that the photographs are not there to be elaborated on in a detailed fashion, but are intended for use in engaging with specific associations that the presenter assumes the members of the audience possess personally (this is of course obvious, but important to mention). These associations provide the presenter with further means to elaborate on a number of specific narratives.

Imagine if one were to mute the words of the presenter. One would face three photographs documenting specific, but seemingly arbitrary, areas of a hospital interior, without any reference. The title of the slide already gives away another reference, but the real push in how one is to interpret the photographs is present in the words of the presenter (starting with a clarifying and pre-emptive note – ‘And uh, these are not kind of arbitrary results’ – as if the very likely misinterpretation of arbitrariness, as a realistic threat, needed to be forestalled first). Hence, in the process of narrating his story, the audience is placed within a specific disposition in regards to the term ‘healthcare’, in which the photographs suddenly become active components in framing (priming) this disposition visually. That said, the process of creating this disposition is initialized predominantly in a verbal/textual manner. It is not the detailed contents of the photographs, but rather the associations that are engaged with, for which the photographs as a kaleidoscopic whole provide visual primer material, that provide the presenter with further means to narrate a number of specific stories. Other than being provided with visual primer material, the audience first and foremost needs to be told what the photographs in question are and how to interpret them.

It is interesting to compare these two sequences with the pitchman's demonstration, because they show the difference in *the kind of object* Juha is concerned with. Whereas the wet table provided *narrative weight* in demonstrating a *dramatic development* in washing cars, the photographs provide *narrative weight* in representing a *dramatic development* when entering a healthcare centre: ‘A servicescape for ideal healthcare experiences?’ The question mark in the caption is significant here. Whereas the glass bowl was introduced to demonstrate a *kind of object* as measured and quantified over time, the funnel diagram is introduced to explain a *kind of object* that, here too, is expressed in terms of measure and quantity over time, as explicated in line (9): ‘your amount of agency goes down’. Unlike the pitchman, Juha cannot show the dramatic development or demonstrate the *kind of object* he is concerned with, only suggest it (Figure 6.2).



Figure 6.2: Comparing the object of storied design of the pitchman with that of Juha's. Juha needs to explain a designated narrative plot

This illustrates a form of storied designing where relationships are explicated in a narrative form, where the visual form functions as a general association to what becomes storied about them. Hence the illuminating nature of Juha's opening words in line (1), 'So, when thinking about healthcare.' These words indicate 'a verbal appeal' to what one typically sees in healthcare, what one typically knows about healthcare, and how one typically feels when being in healthcare: Is this a 'servicescape for ideal healthcare experiences?' Juha's *kind of object* seems to exist more by the grace of recognition in the relationship that he draws to a generalized situation of a *dramatic development* in 'when you enter a healthcare facility' (line 13). Narrative weight is given to a set of photographs and a diagram as representations of this dramatic development where a narrative plot is questioned and remains largely indefinite. What this dramatic development looks like in 'when you enter a healthcare facility' needs to be explicated further. *Unlike the pitchman, Juha deals with a kind of object where the designated narrative plot needs to be given form in the first place.*

6.2 The patient role when entering healthcare as designated narrative plot

Placing the two sequences in line allows me to pinpoint some form of a narrative plot as *the object for storied design*. The narrative plot that seems to figure in both sequences, and which allows Juha to segue from one sequence into the next, is: *the patient role when entering healthcare*. This seems to be a narrative plot that is repeatedly storied and dramatized within this sequence. *Narrative weight* is given to the set of photographs as visual snippets that capture what is seen from the eyes of the patient when entering healthcare. *Narrative weight* is given to the diagram as pinpointing an abstract aspect of the patient role in terms of an 'amount of agency' when entering healthcare.

Further indication of this narrative plot is also vocalized as an en passant remark in line (8): 'when you become sick and you enter a healthcare facility'.¹ Indeed, as far as Juha's 'demonstration' of a *dramatic development* goes, this basic understanding in the sentence seems to be most explicit in representing a plot that becomes grounded to some extent. In addition to the photographs and an 'amount of agency', 'the patient role when entering healthcare' is provided *narrative weight* that *matters* in a particular concrete conduct that can be understood as physical and formal to anyone in the event of 'when you become sick and you enter a healthcare facility'.

¹ In referring to the funnel diagram, the presenter opens with 'This is how a patient's role goes into the' (line 7). The presenter leaves that sentence unfinished. Instead, he makes a passing remark in a new sentence: 'when you become sick and you enter a healthcare facility' (line 8). The presenter then swiftly continues in reference to the diagram: 'your amount of agency goes down'

What this sequence further indicates is that, other than understanding this dramatic development within the context of healthcare, one may understand this dramatic development within the context of a particular design process.

‘So, the patient is a very narrow term in healthcare. But what I am arguing is that, if you study the patient, you might actually find the key, how to design the new healthcare, much better healthcare.’

(LINE 14)

Juha seems to be representing a dramatic development in ‘the patient role when entering healthcare’ as much as he is explaining this dramatic development as an entry point for a particular design approach. In the following four sections, I show that this initial form of a narrative plot – as drawn together in a set of photographs, a diagram and a narrative indicated by the passing remark ‘when you become sick and you enter a healthcare facility’ – provides an object *for* storied design that allows Juha to mobilize a dramatic development through and within an elaborate sequence *of* interplaying objects of storied design, where the narrative weight becomes increasingly grounded in concrete methods of representation: a *process of objectification*.

6.3 *Objectifying the narrative plot in ‘a customer journey’*

Juha continues by discussing the case of FimLab. FimLab is the biggest laboratory chain in Finland. FimLab laboratories operate in very different kinds of venues, such as buildings from the fifties, sixties, eighties, and most recently also malls. The design brief entailed the design of a servicescape for their laboratories, which should be modifiable to suit to these very different locations and also support excellent customer experiences, as well as reduce the amount of space required to provide these services.

In this sequence, I show how this narrative plot of ‘*the patient role when entering healthcare*’ allows a dramatic development to be mobilized and repeated in a representation of a customer journey that is specific to Fimlab. In this mobilization, I show how the narrative weight shifts from the set of photographs, a diagram and a narrative indicated by a passing remark (‘when you become sick and you enter a healthcare facility’) to a temporal separation of events that further shows, as much as it objectifies, this narrative plot. The result in terms of what is shown is explicitly staged and explained as a result of a particular design method.

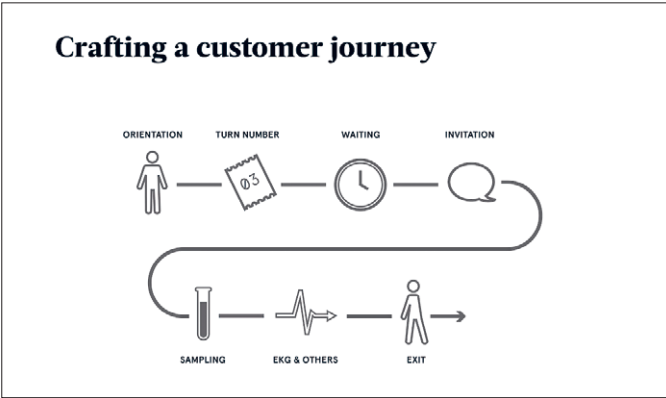


Image 6.3.1

15 | [New slide (Image 6.3.1)] | [brief glance at slide]
 | So first, | we met with the client, we start asking them questions.
 | How does your service start, where does it start from?

16 | And we map actually the whole service process, starting from, perhaps, the doctor,
 | who gives them [patient] the task of going to a laboratory, or prescription, or an order.

17 | [brief glance at slide----] glance at floor | glance at slide]
 | But, in this case, we, | because | we were thinking about the servicescape,
 | so, we started with this first step of orientation.

18 | So, | [literally takes a step forward] | [gestures arm]
 | when you step into a new space, what | happens then.



Image 6.3.2



Image 6.3.3

19 | And then | [looks at slide and points---- (Image 6.3.2)] | cont. gesturing arm (Image 6.3.3)]
 | we kind of | identified all of these steps.



Image 6.3.4



Image 6.3.5

20 | This was important | [gestures arm---- (Image 6.3.4)] | gestures hand (Image 6.3.5)
 | for us to | understand where do we



Image 6.3.6



Image 6.3.7

| pinches fingers (Image 6.3.6)
 | put our | gestures hand (Image 6.3.7)
 | insights and observations into.



Image 6.3.8

21

We needed a kind of

| cont. gestures arm (Image 6.3.8)

| structure to understand how the service operates.

The slide provides a representation of a customer journey that consists of a temporal separation of concrete events that take place when someone enters a Fimlab facility. The *dramatic development* that was previously represented in a set of photographs, the concept of agency and a narrative indicated by a passing remark (“when you become sick and you enter a healthcare facility”) is now represented in a temporal separation of events that is specific to a Fimlab facility. *Narrative weight* has now shifted to the temporal separation of events, where the references found in lines (17), (19) and (21) – ‘this first step’, ‘all of these steps’ and ‘a kind of structure’, respectively – are indicators of this *narrative weight* being given. A strict order in the temporal separation of events is further punctuated by the words ‘what happens then’ in line (18), which indicate the *narrative weight* in the episodic nature of this order. This shows a form of storied designing where the narrative plot of ‘the patient role when entering healthcare’ allows a *dramatic development* to be mobilized across the presentational pane with a customer journey, where the customer journey further shows as much as it objectifies the *narrative plot*. In this *interplay of objects*, narrative weight has now shifted to a temporal separation of concrete events ‘when entering a Fimlab facility’.

6.3.1 The narrative weight in the customer journey

In comparison with the previous sequence, it seems that in whatever is represented about the *dramatic development* ‘when entering a Fimlab facility’, whether this is with a healthcare experience, an amount of agency, a narrative indicated by a passing remark or a temporal separation of events, it is in what becomes *sequentially* shown about the *dramatic development* that makes a difference in the form that is given to the narrative plot. In so far as one can assume that one enters a Fimlab facility at all, the *narrative weight* in what happens next is only available within a sequence of *representations of what happens next* (a photograph, a diagram, a customer journey). Unlike the Super Chamois pitch, Juha’s narrative plot is not only undemonstrated, its narrative weight is in motion.

As much as the customer journey draws a relationship in a temporal separation of events, Juha also seems to be mobilizing the customer journey in drawing a relationship to a specific process of design: ‘crafting a customer journey’ (title of the slide). This becomes apparent in the *staged interplay* between the representation of the customer journey and what is storied about it.

‘This was important for us to understand where do we put our insights, and observations into, we needed a kind of structure to understand how the service operates.’

(LINE 20–21)

Whereas the slide represents the customer journey, the presenter refers to this customer journey in accounting for its function within a process of designing.² The customer journey represents a dramatic development (‘when entering a Fimlab facility’) as much as the representation itself is accounted for as a concrete result of a specific design method (Bucciarelli 2002). Contrary to the previous sequence, Juha is no longer only dramatizing a healthcare context, but explicitly identifying with the function of the customer journey through dramatizing a design process that seeks to arrive at an object of design (Lloyd 2002). The customer journey objectifies the narrative plot further, where the *narrative weight* shifts and becomes grounded in a temporal separation of events that is specific to ‘the patient role when entering a Fimlab facility’. Juha’s narrative plot is not designated, but being designated within a method of design through which the narrative weight shifts and becomes grounded in its resulting representation.

6.4 Objectifying the narrative plot in a ‘spaceship aesthetic’

It is interesting to compare the following sequence with the previous sequence because it shows how the temporal separation of events, as represented in the customer journey, allows Juha to further mobilize a *dramatic development* in the representation of a specific visual aesthetic, where the *narrative weight* shifts and becomes increasingly grounded in a specific ‘look’.

TRANSCRIPT 6.4



Image 6.4.1

- | [New slide (Image 6.4.1)]
 22 | Then we go into the space.
 23 | This is, the pilot is in Virrat, which is a small place, basically in the middle of nowhere.
 24 | The health centre was built in the sixties,
 25 | and it still looks like that.

² Although the original article of Scott & Lyman considers accounts within an interview setting, the conduct of justification remains relevant within this setting of a design presentation (Scott & Lyman 1968).

The slide contains photographs of a particular Fimlab facility. Below the photographs one can note the captions ‘Environments’, ‘Artefacts’, and ‘Interactions’. In the visual form, one can note how the photographs are framed: they have been selected and edited into three circular forms. This composition provides a viewing point that is designed to evoke peeking through a circular cut-out when inspecting selected visual aspects of this particular Fimlab facility. Like with Team 2’s photographs of the ticket, this particular way of selecting and editing indicates an attempt to prescribe a certain angle or viewpoint.

TRANSCRIPT 6.5



Image 6.5.1

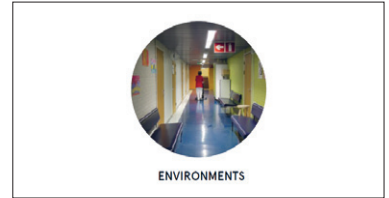


Image 6.5.2

26 | [brief glance at slide and points (Image 6.5.1 and 6.5.2)]
 | Kind of like this spaceship

| [brief glance at slide]
 | aesthetics.



Image 6.5.3



Image 6.5.4

27 And uh, so, we kind of tried to communicate, and

| [gestures hand (Image 6.5.3)]
 | sense how the environment is, and what

| [gestures hand (Image 6.5.4)]
 | kind of things does it



Image 6.5.5

28 'is it | [makes performative bow (Image 6.5.5)]
 | pleasant?'

29 Is it | [brief glance at slide] | [brief glance at slide]
 | nice to sit around waiting for your | turn there.

30 We also | [brief glance at floor]
 | mapped the artefacts that we saw around.

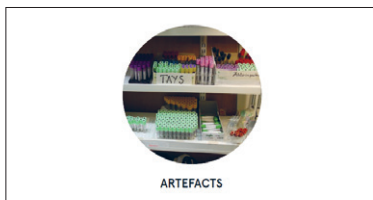


Image 6.5.6



Image 6.5.7

31 | [looks at slide (Image 6.5.6)]
 | There is a, in laboratories, there is a lot of

| [gestures fingers (Image 6.5.7)]
 | this kind of, uhm, vials and needles, and



Image 6.5.8

basically, they are | [makes swelling gesture (Image 6.5.8)]
| everywhere. This is the, they were like,



Image 6.5.9

when you entered | [acting gaze left---- (Image 6.5.9) | then gaze right, (Image 6.5.10)]
| the space, basically | everything you saw was vials.



Image 6.5.10

32 | [brief glance at slide] | [then at floor]
| But also, | you had material gathered from local schools, for example,



Image 6.5.11

| [gestures arm, as if sketching in mid-air (Image 6.5.11)]
| small drawings kids had done,



Image 6.5.12

33 and the staff had done | [gestures hand, as if scribbling a sentence in mid-air (Image 6.5.12)]
| a lot of notifications.



Image 6.5.13



Image 6.5.14

34 This is usual in healthcare environments, | [gestures hand, as if plastering (Image 6.5.13 and 6.5.14)]
| that you have these plastered small papers everywhere, and



Image 6.5.15

35 you don't | [makes face, as if in confusion, gestures hand as if to grasp something (Image 6.5.15)]
 | really make sense of that as a customer.
 | [looks at slide]
 | Also we sampled interactions.



Image 6.5.16

36 | [points at slide (Image 6.5.16)]
 | This is actually, this picture is from our



Image 6.5.17

| [gestures arm (Image 6.5.17)]
 | later work with this organization.



Image 6.5.18

37 But | [looks at slide] | [gestures hand] | [gestures arm (Image 6.5.18)]
 | we went, and sat | in this chair, and okay, how would this | go.



Image 6.5.19

38 And we noticed that you, you know, when you, | [gestures arm (Image 6.5.19)]
 | having your blood taken, the vial is put into this kind of a
 | [rocks hand sideways back and forth (Image 6.5.20)]
 | thing that moves it around, so it won't clog. And while you're waiting there, you're watching your own blood,
 kind of spin around.



Image 6.5.20

39 | [brief glance at slide]
 It's perhaps | not the most pleasant environment.

40 And uh, we gained a | [gestures arm]
 | lot of this kind of observations.

The customer journey that was represented in the previous sequence allows Juha to follow in the footsteps of ‘the patient role when entering a Fimlab facility’. It allows him to further mobilize a *dramatic development* in the representation of a particular visual aesthetic of what this temporal separation of events looks like. *Narrative weight* has now shifted to ‘the hallway that is seen while waiting for one’s turn’, to the ‘vials, needles and other fragments that [are] seen occupying wall space’, to ‘the chair in the laboratory’ and ‘a blood spinning thing that is seen while sitting in that chair’. This shows a form of storied designing, where the temporal separation of events allows for a *dramatic development* to be mobilized across the presentational pane with a visual aesthetic, where this visual aesthetic further shows as much as it objectifies the narrative plot. In this interplay of objects, *narrative weight* has now shifted to a specific ‘look’.

6.4.1 *The narrative weight of a specific ‘look’*

Juha’s account seems to dramatize a visual aesthetic from the point of view of a specific ‘look’. This becomes clear in the *staged interplay* where the dramatic gestures present in line (31), (34) and (38) indicate that Juha is literally acting out ‘what it looks like’ and ‘how it feels like’. One may understand the images as visual documentations of this visual aesthetic and what is storied about them as a subjective portrayal of how Juha thinks of it in terms of a specific ‘look’.

It is hard not to notice the general force or intention in the *kind of object* that is of concern here, which is to relate what is seen in the photographs with a negative assessment (Oak 2006). For instance in line (24), ‘The health centre was built in the sixties’, which is immediately followed by a sneering dismissal in line (25), ‘and it still looks like that’³, and then culminates in line (39), ‘It’s perhaps not the most pleasant environment’. The *narrative weight* seems to shift to a deliberation on a particular style represented in the photographs.

It is important to note that this *kind of object* cannot be demonstrated in the way the pitchman can with the Super Chamois. In themselves, the photos can be understood as ‘flexible objects’ (Amann & Knorr Cetina 1988) that may not display Juha’s negative assessment explicitly enough, or any other assessment for that matter, as becomes apparent in Juha’s statements about it. They may, however, favour one point of view rather than another (Burke 1969). However, what becomes apparent in how the photographs become staged is that, rather than demonstrating a physical property (*‘Seventy times its weight of liquid’*), Juha needs to negotiate the point of view of a specific look (‘is it pleasant?’).

In negotiating this specific look, the photographs act as a basis for a deliberation rather than an observation at a glance. They are subjected to extensive assessment, which attempts to achieve the work of seeing the negative connotation in a specific ‘look’ that is portrayed in the set of photographs. Juha seems to be *making* an observation (Amann & Knorr Cetina 1988), where the observation that is made pertains to a specific ‘look’ that is the result of a particular way of ‘looking’.

In this particular way of ‘looking’, Juha seems to be explaining a specific ‘look’ as much as he is negating that specific ‘look’. As much as he is ‘demonstrating’ what a Fimlab facility looks like, he is also suggesting an alternative look that represents an abstract opposite to what is seen in the photographs. The *narrative weight* seems to shift to a competing look between that which is concretely represented in the photographs and an alternative that stands in opposition to that. The negative assessment that is assigned to what is seen in the photographs can only spring from an alternative *he* has ‘in mind’.

The *narrative weight* of what he ‘has in mind’ can be elaborated on in two steps. First, in looking, Juha seems to be explaining a specific look as much as he is negotiating a taste for a specific look. In fact, he seems to be negotiating *his* taste for a specific look. The negative assessment that is assigned to what is seen in the photographs can only spring from an alternative visual aesthetic as a certain style form *he* has ‘in mind’. The *narrative weight* seems to shift to his way of looking rather than any other way of looking. It tells one about the things he does and does not like about the look of the facility, not

③ Unless one appreciates the facility as a timeless space, I do not believe that this connotation is made out of flattery. Rather, it is to point out the opposite, as if the facility has stood still, has undergone no development, for over fifty years. ‘It is through evaluation that ideological values are conveyed’ (Oak 2006).

just as a person, but more importantly as a professional designer. What becomes represented in the photographs, then, is not what is seen by ‘the patient role when entering a Fimlab facility’ per se, but a *kind of object* that is lodged in the result of a particular way of looking: a method of style interpretation/representation, where style form represents itself in competing forms (Forty 1992; Person 2010).

Second, in extension to the first and, more concretely, in looking, Juha also seems to be seeing the current visual aesthetic from the point of view of the resulting object of design. This is a representation of the *kind of object* he is concerned with in this sequence, which one can be sure that *he* does ‘have in mind’. That is, the specific ‘look’ that he assigns to what is represented in the photographs stands in opposition to an object of design that he knows about.

In the interplay of objects, the *narrative weight* seems to shift ahead of the sequence, from the visual aesthetic of a current built environment to a visual aesthetic that is to be established with the object of design as the result, whose opposing composition allows for a deliberation on a specific ‘look’ in the first place. From Juha’s point of view, the object of design as a result allows him to deliberate on a specific point of view on the current visual aesthetic, rather than any other point of view. The visual aesthetic represented in the set of photographs objectifies the narrative plot further; the *narrative weight* shifts and becomes grounded in a specific ‘look’ that is the result of a particular way of looking at what is seen ‘when entering a Fimlab facility’.

6.5 Objectifying the narrative plot in a ‘waiting turn slip machine’ and ‘different places of the laboratory’

It is interesting to compare the following sequence with the previous sequence because it shows how a *dramatic development* in a specific ‘look’ is further mobilized in the representation of a prototype and a map of a specific Fimlab facility, where the *narrative weight* shifts and becomes further grounded in concrete artefacts and a concrete spatial separation that is specific to an existing Fimlab facility.

TRANSCRIPT 6.6



Image 6.6.1

41 | [New slide (Image 6.6.1)]
| So, we built a small cardboard laboratory.

42 | We put all the touchpoints, all the points of interaction,

| [brief glance at slide]
| into this space,



Image 6.6.2



Image 6.6.3

43 and then | [gestures arm (Image 6.6.2)] | [takes few steps, gestures hand (Image 6.6.3)]
 | we invited the people in, and we | walked with them through this.

44 Okay, this is the orientation phase, you have now entered a new space, what are you looking for?



Image 6.6.4



Image 6.6.5

45 What is your main aim, | [makes face (Image 6.6.4)] | [lets shoulder hang (Image 6.6.5)]
 | what is your | feeling?

46 And we have all of | [gestures arm----] | cont. gesturing arm
 | our insight, we try to | present them there.

47 And if you had | cont. gesturing arm]
 | any preliminary ideas, we did them there.



Image 6.6.6



Image 6.6.7

48 | [points---- (Image 6.6.6)] | gestures hand with pinched fingers as if sketching (Image 6.6.7)
 | We, for example, drew | the waiting turn slip machine,

49 and we tried to, okay, what if | [gestures hand]
 | it said that.



Image 6.6.8



Image 6.6.9

50 And most of our guesses were kind of off. | [makes face (Image 6.6.8)]

51 We improved a lot of them during this workshop and we | [gestures hand]
 | redid them, and but some of

| [gestures hand----] | [gestures hand]
 | the ideas, the customers loved them. And they | really wanted them implemented.

52 | [points at slide (Image 6.6.9)] | [gestures arm]
 So, | we looked at the artefacts, | what do we find in this thing.

- 53 | [brief glance at slide] | [gestures arm]
| and also the interactions: | How does the actual sampling take place.
- 54 | [gestures arm]
I have to say again, when I worked with the nurses, they are, they do this tens of times a day.
They are very efficient in doing the sampling. And somehow, within the matter of minutes,
| [gestures fingers]
it takes about, | not more than five minutes, to do a sampling, within this amount of time,
you feel very welcome, and taken care of.
- 55 | [brief glance at slide]
So, I think, | the people are not the problem.
- 56 | [gestures arm]
So, | we tried to kind of, design the environment around this
| [looks at slide] | [looks at LT]
| so that the patient also feels good, | and I will show the results a bit later.
- 57 | [points at slide] | [gesturing arm]
So, this | was a very nice way of kind of | testing your hypothesis and testing your ideas
| [gesturing arm]
and really | quickly iterating on them.

The *narrative weight* in the temporal separation of events and a corresponding specific ‘look’ enable Juha to further mobilize a *dramatic development* in the representation of a prototype that simulates the same temporal separation of events and depicts overlapping instances of what is looked at. The slide shows three sets of photographs (environments, artefacts, interactions) that represent this prototype from different views. The set on the left illustrates viewpoints into the space where a Fimlab environment was prototyped; in the middle, a number of artefacts that were prototyped within that environment; on the right, a number of interactions taking place within that environment, notably including a number of people and various interactive digital media. *Narrative weight* has now shifted to a concrete ‘cardboard laboratory’ and ‘touchpoints’, such as the ‘waiting turn slip machine’ (but also the interior composition of tables, tools, interactive screens and other digital boxes, which are not mentioned in the presentation). The overall conditions depicted can be characterized as a ‘work-in-progress’ as indicated by the many post-it notes pasted everywhere in the installations depicted in the photographs. This shows a form of storied designing where the temporal separation of events and a corresponding specific ‘look’ allow for a *dramatic development* to be mobilized across the presentational pane with a representation of a prototype, where this prototype further shows as much as it objectifies the narrative plot. In this interplay of objects, *narrative weight* has now shifted to a ‘waiting turn slip machine’.

6.5.1 *The narrative weight of the ‘waiting turn slip machine’*

One can immediately note that the *narrative weight* has shifted from a representation of a Fimlab facility to a representation of a design studio. If it was not clear from the previous two sequences, it certainly becomes clearer now that Juha is no longer dramatizing a healthcare context. Rather, he is dramatizing a design process. This also becomes apparent in the staged interplay as Juha refers to the photographs throughout his speech, most notably in lines (43), (44), (46), (47), and (48): respectively, ‘this space’, ‘through this’, ‘there’, ‘the waiting turn slip machine’ and ‘what if it said that’. The description of a linear sequence of successive steps interspersed with terms such as ‘and then’ in line (41) seems to indicate some sequence of action while designing.

Further indication of this shift in dramatic terms can be noted in Juha’s assessment of what is depicted in the photographs. One may understand Juha’s assessments – ‘most of our guesses were kind of off’ (line 50), ‘we improved a lot of them [guesses]’ (line 51) and ‘this was a very nice way of kind of testing your hypothesis and testing your ideas

and really quickly iterating on them' (line 57) – in regards to a particular design process. Additionally, there are strong performance expressions in Juha's body. One can note specific facial expressions, as if he is seeing (imagining seeing) that very action of design on which he is deliberating (image 6.6.4 and 6.6.8). More than once, one can note specific gestures that mimic artefacts and the actions of design that were undertaken on these artefacts (image 6.6.2, 6.6.3 and 6.6.7). Within this choreography, Juha's body becomes an important means in dramatizing those actions of design that were involved in a specific method of design: prototyping.

Juha is acting out a particular design process, where the sequence could be understood as a 'counterfactual statement' (Bucciarelli 2002) as embodied in the act of storied designing specific artefacts, such as the 'waiting turn slip machine': 'we tried to, okay, what if it said *that*' (line 49). Fittingly, in this shift of narrative weight, rather than 'the patient role when entering a Fimlab facility', one may find a specific method representing an object *of* storied design that is dramatized as an object *for* storied design, where the *narrative weight* shifts to the method itself as grounded in an object that is both storied according to a method and designed as a concrete result of that method.

What seems to be suggested in the previous two sequences becomes more pronounced in this sequence. The *kind of object* that is subject to storied designing also explicitly draws together a relationship that develops over time between a *dramatic development* in 'the patient role when entering a Fimlab facility' and a *dramatic development* concerning what Juha did to design this development. In this sequence one can note that the *narrative weight* in the prototype stands at the intersection between two *dramatic developments*. Prototypes such as the 'waiting turn slip machine' objectify the narrative plot further: the narrative weight shifts and becomes grounded in specific artefacts that are specific to the dramatic development in 'the patient role when entering a Fimlab facility'. At the same time, prototypes such as the 'waiting turn slip machine' also objectify a particular method of design, where the *narrative weight* shifts and becomes grounded in its resulting representation that is specific to the dramatic development in Juha's actions in designing it. Juha is storied designing a method of design as a method *for* storied design, which allows him to mobilize a *dramatic development* in the representation of a design process. Juha's narrative plot is not designated, but being designated within a concrete method of design, through which the narrative weight shifts and becomes grounded in its resulting representation. In the mobilization of a dramatic development, it is the concrete method of representation that becomes mobilized across the presentational pane. That is, *the object of storied design confuses a relationship between the objectification of a narrative plot and a method of representation as a means of objectifying it.*

6.5.2 *The narrative weight of a floor plan*

The following sequence is an interesting comparison with the previous sequence because it shows how the customer journey, a specific 'look' and a prototype allow Juha to further mobilize a *dramatic development* in the representation of a floorplan, where the *narrative weight* shifts and becomes further grounded in a concrete spatial separation.

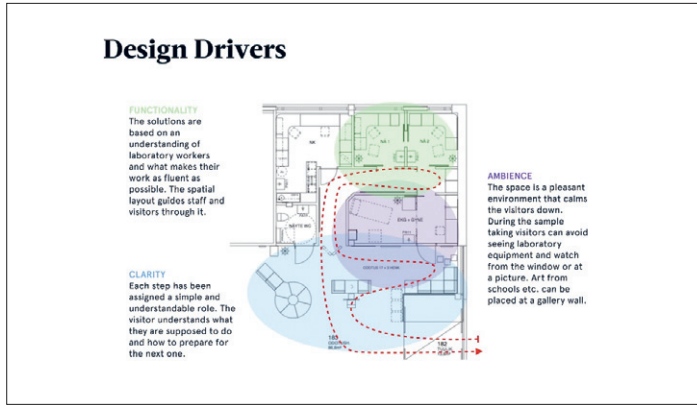


Image 6.7.1

58 | [New slide (Image 6.7.1)]
 | So, what are the results.

59 We put them into three design drivers. Functionality, clarity, ambience.

60 And these | [looks at slide----] | looks away from slide]
 | are situated around different places of the laboratory. |



Image 6.7.2



Image 6.7.3

61 So clarity, | [gestures hand---- (Image 6.7.2) | cont. gestures hand | gesture (Image 6.7.3)
 | first when you enter the space, you | need very clear instructions. | Where to go,



Image 6.7.4



Image 6.7.5

| gesture | gesture (Image 6.7.4) | gestures finger pressing (Image 6.7.5)]
 | what to do, | why are you here, | press this.



Image 6.7.6



Image 6.7.7

62 | [brief glance at slide, gestures hand (Image 6.7.6)] | [makes face, gestures hand (Image 6.7.7)]
 | Often in healthcare you are presented with a | lot of information, as soon as you



Image 6.7.8



Image 6.7.9

arrive and you. | [makes face, gesture hand (Image 6.7.8)] | [makes face, gestures hand (Image 6.7.9)]
 | basically, it | just confuses you.

63 So in the start, just try to do it as little as possible. | [brief glance at slide]

64 Then when you're | [gesture----] | gesture
 | waiting, you might get a bit more information. | What happens next.

65 | gesture | gesture
 | Take your ID out, for example, because you will need it. And | why are you waiting for fifteen minutes

it's | gesture)
 | to calm your body down.

66 And | [looks at slide and points] | [gesture, gripping hand] | [gesture]
 | here also we tried to | create the space like | as relaxing as
 possible, so that people are

| gesture | gestures)
 | not stressed in waiting. You know, it's not really | nice to have something stuck into your body.

67 But | [brief glance at slide] | [gesture] | [looks at slide----]
 | we try to | create as much as a nice environment | as possible.

68 | points at slide | looks away from slide | [gesture]
 | And the third one | is functionality, support the operations of the | staff as well as possible.

69 So, if you | [gesture]
 | do a certain kind of movement tens of times a day, it needs to be ergonomically

quite well designed. So that | [gesture body movement]
 | the people do not get any problems.

The slide shows a floorplan of a specific Fimlab facility. This floorplan shows a top view of an interior of different spaces, rooms and furniture. One can note two overlays with additional information: one regarding three specific areas, indicated by different colours, which correspond with three 'design drivers'; the other, a plotted path of 'the patient role when entering this specific Fimlab facility'.

The *dramatic development* that was previously represented in a customer journey, a specific 'look', a prototype, is now further mobilized in the representation of a floorplan that is specific to an existing Fimlab facility. *Narrative weight* has now shifted to the representation of a concrete spatial separation of an area that has clear and definite dimensions, where the references found in lines (61), (64) and (68) – respectively, 'first when you enter the space', 'Then when you're waiting' and 'And the third one' – are indicators of this *narrative weight* being given. A strict order in the temporal separation of events that is depicted throughout the previous sequences is given further *narrative weight* with the plotted path that is overlaid on the floorplan. This temporal separation is further punctuated by the words 'first' (line 61), 'Then' (64) and 'And the third one' (68), which indicate the *narrative weight* in the episodic nature of this order. This shows a form of storied designing where the temporal separation of events allows for a *dramatic development* to be mobilized across the presentational pane with a representation of a floorplan, where this floorplan further shows as much as it objectifies the narrative plot. In this interplay of objects, *narrative weight* has now shifted to a concrete spatial separation.

The *dramatic development* is not as much represented by a set of design drivers

(clarity, ambiance, functionality), as it is represented in the concrete method of spatial separation, by which the facility has now been divided into three different areas. The fact that each part has a design driver as a key directive is not as significant as the fact that each part can now be addressed as a somewhat independent unit of design that fits an overall designated narrative plot. The narrative plot of ‘the patient role when entering healthcare’ has now been designated in a temporal separation of events, where the *narrative weight* in the separation corresponds with a concrete spatial separation of an area that is grounded in a concrete floorplan that offers a top view of a specific and existing Fimlab facility.

6.6 Objectifying the narrative plot in a servicescape

The following sequence provides a concluding comparison, where the *narrative plot* in ‘the patient role when entering a Fimlab facility’, as incrementally objectified in a customer journey, a specific ‘look’, a prototype and a floorplan, allows for a dramatic development to be mobilized one last time with the representation of a designed servicescape, where the *narrative weight* is grounded in a more or less finished form of an interior design of a specific Fimlab facility as a result. Despite the concreteness of the designed interior, I show that the servicescape cannot be demonstrated, but is necessarily represented in the form of storied designing. This concluding form ends the *process of objectification* as an overarching method for storied design in representing an *object* that is necessarily both storied and designed: *a storied design*.

In the original recording, the following sequence consists of three parts, each corresponding to different representations of the servicescape: 1) a photograph of an interior of a lobby, 2) a photograph of the room where the blood sampling takes place, and 3) a photograph of a pin board that is mounted on a wall for children’s drawings and notifications. For my purpose, it suffices to present only the first two parts of this sequence.

TRANSCRIPT 6.8



Image 6.8.1

70 | [New slide (Image 6.8.1)]
| Some of the examples we did.

71 | So, when you enter the facility, we give you three choices. | [brief glance at slide]



Image 6.8.2

72 | [gestures hand and thumb (Image 6.8.2)] | [gestures (Image 6.8.3)]
 | If you're here, with the time you have reserved before, you can just wait | and you will be called in.



Image 6.8.3



Image 6.8.4



Image 6.8.5

| [brief glance at slide] | [gestures hand (Image 6.8.4)] | [gestures finger (Image 6.8.5)]
 | If you come straight ordered by| the doctor, then you have to take| a number.

| [gestures hand]
 | Or if you're bringing in samples, you take a number.



Image 6.8.6



Image 6.8.7

73 So just | [gestures fingers (Image 6.8.6)] | [brief glance at slide] | [looks at slide----]
 | three questions that | you answer and you | press the number.

74 And | points at slide (Image 6.8.7) | [gestures hand (Image 6.8.8)]
 | while they're waiting, they are given | three more advices.



Image 6.8.8



Image 6.8.9

75 Just take| your ID card, sit | looks away from slide | looks back at slide | gesture
 | for ten to 15 minutes, | try to sort of | relax.

76 And also | looks away from slide] | [gestures hand (Image 6.8.9)]
 | one of the things was, what we noticed is that, | people walk out after the sampling,



Image 6.8.10

| [gesture (Image 6.8.10)] | [gesture (Image 6.8.11)]
 | they are told to press on the wound a bit, but because they have | all the jackets they have to
 carry, they forgot this immediately. Immediately when they stepped out of the door they went like



Image 6.8.11



Image 6.8.12

| [gestures arm (Image 6.8.12)] | [gestures hand (Image 6.8.13)]
 | psjew ... and then, you know, often you had | the blood on the floor and everything.



Image 6.8.13

77 | [brief glance at slide] | [points at slide]
 So, we tried to | kind of design around this, and | this is one part of it.

The first slide shows a photograph of an interior design of a waiting hall. One can note how the hallway looks different from the hallway that was shown earlier. The photograph is flanked and overlaid by two enlarged images of the two graphic boards that are present in the photograph. In the staged interplay one can note that *narrative weight* has now shifted to what is depicted in the slide, where the references to ‘three choices’ (line 71), referring to the waiting turn slip machine and the graphic board behind that, left of the door, and ‘three more advices’ (line 74), referring to the graphic board placed to the right of the door, are indicators of this *narrative weight* being given. Further indication of this *narrative weight* being given can be found in the staged performance in line 72, where the dramatization of the ‘waiting turn slip machine’ becomes evident in the choreography of Juha’s bodily movements in mimicking the actions that are required in operating that machine: ‘you press the number’ (line 72).

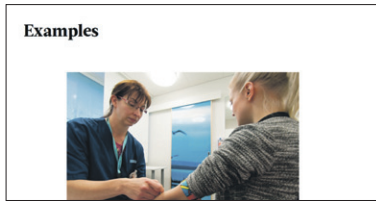


Image 6.9.1

78 | [New slide (Image 6.9.1)] | [looks at slide----
| Uhm, | in the sampling area, we



Image 6.9.2

| points at slide (Image 6.9.2)
| turned the patient in a different direction.



Image 6.9.3

79 | [looks away from slide] | [gestures arm (Image 6.9.3)] | [brief glance at slide] | [gestures arm (Image 6.9.4)]
| Often they took | the sample from the right arm, | and which would | turn you towards



Image 6.9.4



Image 6.9.5

| [gestures arm (Image 6.9.5)]
| the table where they have all the sampling equipment and then



Image 6.9.6

| [gestures arm and finger (Image 6.9.6)]
| you would look at the blood flowing there.



Image 6.9.7

80 So, we | [gestures arm (Image 6.9.7)] | [points at slide---- (Image 6.9.8)]
| turned the patient the other way, where they sample from the | left arm, which is they can watch
outside



Image 6.9.8

| [lowers arm]
the window, or we put this small picture in there | with the kind of a nice environment. So, they wouldn't
kind of have to look into the operation.



Image 6.9.9

81 So, | [gestures hands (Image 6.9.9)]
| we divided the room into kind of two parts.
The thing that the patient sees, and the thing that the staff sees and uses.

The second slide shows a photograph of the room where the blood sampling takes place. *Narrative weight* has now shifted to the specific angle from which the photograph is taken that shows a different orientation of the patient seating, now facing a window and a picture on the door. Further indication of this *narrative weight* being given can be noted from the staged interplay in lines 79–80, which show a choreography where Juha changes arms and turns his body almost 180 degrees to indicate that difference in orientation: ‘So, we turned the patient the other way’ (line 80). These two sequences show a form of storied designing where the temporal separation of events and a corresponding specific ‘look’ and a floorplan allow for a *dramatic development* to be mobilized across the presentational pane with a representation of a servicescape, where the servicescape further shows as much as it objectifies the narrative plot. In this interplay of objects, *narrative weight* has now shifted to representations of a concrete designed interior of an existing Fimlab facility.

6.7 *The narrative weight in the process of objectification*

The five sequences discussed above (a customer journey, a specific look, a prototype, a floorplan and finally a servicescape) show how a narrative plot needs to be designated and given form in the first place in order to allow a *dramatic development* to be mobilized across the presentational pane through a sequence of interplaying objects of storied design. In comparison with the student presentations, Juha's presentation is more pronounced in showing how a narrative plot is given form through an elaborate *process of objectification*, where the *narrative weight* shifts unidirectionally and becomes increasingly grounded in and through a canon of concrete methods of representation that show and objectify this narrative plot further in an interplay of objects of storied design.

In comparison with the pitchman, however, Juha's *narrative weight* seems to be grounded in a broader form of objectification. Where the narrative weight in the pitchman's demonstration is grounded *within* the Super Chamois (absorption, retention and release), the *narrative weight* in Juha's presentation is grounded in various methods of representation, such as a customer journey (temporal separation of events), a visual aesthetic (specific ‘look’), a prototype (waiting turn slip machine), a floorplan (spatial separation) and finally a servicescape (interior design). Where a *dramatic development* is simply demonstrated with the Super Chamois, Juha is representing a *dramatic development* with various representations. In the absence of a direct demonstration, this sequence of representations could potentially go on to include further objectification with the use of more representations, if and when needed. The *narrative weight* in Juha's presentation seems to vary as much as it seems to remain indefinite and inconclusive. Unlike in the presentation of the Super Chamois, Juha's *narrative plot* remains undemonstrated, only represented through a *process of objectification*. That is, *in a service design presentation, narrative weight is grounded in a range of representations of the object of design, rather than the object of design itself*.

Furthermore, in demonstrating a *dramatic development*, the pitchman mobilizes the Super Chamois itself across the demonstrational pane. This is different in Juha's presentation. What becomes mobilized across the presentational pane is not what happens to ‘the patient role when entering a Fimlab facility’ per se, but a sequence of interplaying representations of what happens from the point of view of various methods, where the sequence of representations can be understood to be part and parcel of a narrative plot that is designated and objectified within and through that sequence. That is, *in a service design presentation, it is the total sum of objects of what becomes represented about the dramatic development as a result of particular methods of representation that is mobilized across the presentational pane*.

Unlike in the pitchman's presentation, the availability of a concrete designed interior still does not allow for a demonstration of a *dramatic development*. Rather, the dramatic development remains represented in a set of photographs that are both augmented and

framed to show a servicescape. Like in the student presentations, the *kind of object* that Juha is presenting does not allow for a demonstration within the presentation in the first place. Juha's object of design consists of the whole process from entering a Fimlab facility to exiting the facility, where the process proceeds via some form of a servicescape that needs to be identified in the first place. Contrary to the pitchman's Super Chamois, this *kind of object* cannot be demonstrated as a whole. It pertains to a designated *narrative plot* that captures a relationship that develops over time with regards to the object of design, where the scale of *narrative weight* is given to a selection of photographs that represent instances that are *storied* and *designed* into a servicescape. The object of design, however, covers the entire designed interior of a Fimlab facility, which in fact covers much more than the servicescape Juha is presenting here and much more than Juha can present at all within a presentation.

Like in the student presentations, Juha is not able to demonstrate the *dramatic development*. Juha is not able to demonstrate how the servicescape changes 'the patient role when entering a Fimlab facility'. What the servicescape *does* is limited to the representations of a dramatic development that one gets to see and hear about in the presentation. Where the pitchman can show what happens to the Super Chamois, what happens in the servicescape (and to the patient role) 'when entering a Fimlab facility' is only available through a *process of objectification*, where the *narrative weight* shifts within and through a sequence of representations, such as a customer journey, a visual aesthetic, a prototype and ultimately a servicescape that consists of a number of photographs of an interior design. This is as good as it gets in 'demonstrating' the *dramatic development* that takes place when the patient role enters a Fimlab facility. The *dramatic development* in 'the patient role when entering a Fimlab facility' is represented, in so far as what is represented about this development constitutes all that is mobilized about it.

Paradoxically, one may ponder whether the servicescape (or the patient role for that matter) actually exists at all. As far as the 'demonstration' goes – like Sami, Team 2's subject in the storyboard – the servicescape (or the patient role) may 'exist' only in so far as what is objectified and *represented* about it. In what is represented about it, *narrative weight* only comes into play in so far as a narrative plot is given to the separate representations. Although the concrete designed interior exists, the 'servicescape' that becomes grounded in the separate representations can only be understood within a designated narrative plot that has been established upfront through a process of objectification. The narrative plot that is increasingly being designated functions as an object *for* storied design, where the *object of design* is increasingly circumscribed by a relationship that is necessarily storied. The representation of a 'servicescape' is Juha's answer to the pitchman's 'Coke on carpet' scene, where the *designated narrative plot* falls into place and the dramatic development becomes implicit to the scene. The *designated narrative plot* as objectified in the separation of events, the specific 'look', the 'waiting turn slip machine', the spatial separation, no longer needs to be repeated with the presentation of a 'servicescape'; rather, as an audience, one may draw on the earlier descriptions. The *designated narrative plot* allows for a *dramatic development* to be mobilized across the presentational pane, where the *designated narrative plot* becomes implicit to an *object of design* that is essentially storied through it. What is designed in the photographs – the selection of instances of a concrete designed interior, the sequence of the photographs and further augmentation with images, and the framing of a point of view – and what is storied about them, are all there is that is mobilized about the *dramatic development* of 'the patient role when entering a Fimlab facility'. The result is an object that is both storied and designed. The servicescape is in fact a *storied design*.

Below I summarize the framework of storied design (table 6.1) and the comparison between different objects of design (table 6.2).

CONCEPTS	DESCRIPTION	PITCHMAN	JUHA
Staged interplay	To show and explain	-Pitchman demonstrates Super Chamois and explains that it absorbs "seventy times its weight"	- Juha shows servicescape and explains it
Object of design	Material constitution of a particular design as final outcome	Super Chamois	Entrance to exit via interior design of Fimlab facility
Object of storied design	Establishes and explains relationship(s)	- Super Chamois to explain absorption, retention and release	- Customer journey to explain sequence of events - Photographs to explain what and how it is like - Prototype to explain relationship with events - Servicescape to explain the object of design
Interplay of objects in storied design	Establishes relationship(s) to object of storied design as result	- Absorption, retention and release are grounded in Super Chamois	- Customer journey, style, prototype, etc. are grounded in servicescape
Kind of object of storied design	Establishes a relationship that develops over time	- Relationship in physical object	- Spatial relationship in Fimlab facility
Dramatic development	A change that occurs over time with regards to the object of design, which is made readily identifiable to a specific audience, may this be in demonstration and/or a story and/or visual representation, as dramatized on stage	- Pitchman shows how Super Chamois absorbs, retains, and then releases water	- Juha shows when entering current Fimlab and asks 'Is it pleasant?' - Juha's servicescape and the dramatic development in entering Fimlab facility through redesigned interior
Narrative weight in storied design	Allows grounding of object of storied design in concrete facts and artefacts	- Narrative weight is given to Super Chamois	- Narrative weight is given to sequence of events in customer journey; turn slip machine in prototype; spatial separation in map; representation of interior design in servicescape
Designated narrative plot	Specific narrative of relationship(s) that identifies 1) the kind of object, 2) the scale of narrative weight that is given and 3) allows for a dramatic development to be mobilized across presentational pane	- 'Absorption, retention and release' is mobilized repeatedly	- 'When entering a Fimlab facility' is mobilized repeatedly
The process of objectification	Process where (1) a narrative plot is being designated to (2) a kind of object that is increasingly given form and allows for (3) a dramatic development to be mobilized through (4) an interplay of objects, where (5) a narrative weight becomes grounded in (6) an object of design that is both storied and designed: a storied design	Pitchman first absorbs water from table, then releases it in glass bowl	Juha's customer journey, followed by photographs of current Fimlab, then prototype, then map and representation of interior design in servicescape
What can be designed in the storied designing?	- Sequence of objects of storied design - Framing in the object of storied design - Staged choreography of object of storied design	- Sequenced as determined by material property of Super Chamois - The table, water and glass bowl arrangement within the scene	- Sequence of customer journey, then observation of current Fimlab - Photographs are framed in keyholes - Representation of interior design is framed from the point of view of a servicescape

Table 6.1: Framework of storied design including the new category of the

	PITCHMAN	TEAM 2	TEAM 5	JUHA
Object of design	Super Chamois	Inpatient outpatient transfer via transfer ticket	Inpatient outpatient rehabilitation via cooking premise	Entrance to exit via interior design of Fimlab facility
Object of storied design	Super Chamois	Transfer ticket	Branded cooking premise	Servicescape
Designated narrative plot	Absorption, retention, release	When exchanging a transfer ticket helps in rehabilitation	When cooking and casual talking helps in rehabilitation	When entering a Fimlab facility
Kind of object	Relationship contained in discrete object	Relationship contained in transfer process	Relationship contained in rehabilitation process	Relationship contained in a Fimlab facility
Narrative weight	Material property of Super Chamois	Logistical facts and artefacts: ticket, date/ time, map, bus schedule, etc.	Catering-specific facts and artefacts: premise, kitchen table, sandwich, sofa, opening times, entrance fees, etc.	Fimlab-specific facts and artefacts: A specific 'look', waiting turn slip machine, instructions on wall, chair in laboratory
Dramatic development	Demonstrated	Represented	Represented	Represented

Table 6.2: Comparison of different objects of design



7 The story of an online digital broadcasting service

In comparison with the student presentations and the pitchman's demonstration, Juha's presentation of a servicescape allowed me to show how a *narrative plot* becomes designated within a *process of objectification*, where the *narrative weight* shifts and becomes increasingly objectified through methods of representation. I showed how the resulting *narrative plot* that is designated allows for a *dramatic development* to be mobilized across the presentational pane with an *object of design* that is both storied and designed in a servicescape.

Whereas the presentation of a servicescape allowed me to analyze the *kind of object* that is subject to a development over time that scales across a physical space, in this chapter I will compare such an object with the presentation of an online broadcasting service, where the *kind of object*, its *narrative weight* and the *narrative plot* that is designated scale across a digital space. I show that under such conditions, a *process of objectification* can also be identified in designating a *narrative plot* that allows a *dramatic development* to be mobilized across the presentational pane with an *object of design* that is also both storied and designed in a user interface. Building on this, I answer to the third inquiry put forward in chapter 4 by exploring how the *narrative weight* that is given to the user interface, as a *storied design*, stands at the intersection between an online broadcasting service, as the kind of object that in totality does not allow for design, and a *process of storied designing* that identifies what can be designed about it.

This relationship between a *storied design* and a *process of storied designing* brings the framework of storied design full circle in establishing the *method of storied design* as a process of design where the *object of design* (or the product) is, in fact, a *storied design*, and the process of designing it can be understood as a *process of storied designing*.

The design presentation is given by Janne Lohvansuu, Managing Director at User Intelligence (See Figure 7.1). User Intelligence is an international consultancy with offices in Amsterdam, Rotterdam and Helsinki. User Intelligence specializes in customer experiences – service design – with a focus on online technology and solutions for industries such as media, telecom and health. Janne works at the Helsinki office. The client of the following presentation is YLE, the Finnish National Broadcasting company. In it, Janne presents the design of an online broadcasting service for Eurovision 2013. The video in question can be found here: https://www.youtube.com/watch?v=t_lbsNlATZY



Figure 7.1: Janne presents the design of an online broadcasting service for the Eurovision song festival

7.1 When 'using mobile phones while watching TV' - the typical scenario

Janne starts by discussing what he calls a 'paradigm shift' that is taking place in popular TV broadcast consumption. Audiences are not limited to TV, but also consume popular broadcasts via second screen devices. The following sequence allows me to show that, like Juha, the *kind of object* Janne is concerned with is not demonstrated, but represented. The *kind of object* is subject to a development over time that is variously and incrementally identified through general phenomena, personal experiences, and statistical numbers that point to a generalized scenario.



Image 7.1.1

- 1 | [new slide (Image 7.1.1)] | [brief glance at slide]
 | So, we are typically dealing with | larger issues than just web services or mobile services.
- 2 | And, | [brief glance at laptop]
 | uhm, they are kind of,



Image 7.1.2



Image 7.1.3

- | [brief stare up in air (Image 7.1.2)] | [hand gesture (Image 7.1.3)]
 | paradigms are things that are set | in people's minds, they are behavioural things that people are used to do.



Image 7.1.4

- 3 | For example, | [brief glance at laptop] | [hand gesture (Image 7.1.4)]
 | a paradigm change might be like mobile | phones changing to touch screens.
- 4 | So, it | [hand gesture] | moves hand]
 | completely changes | the competitor neighbourhood. It changes
 how people operate phones, and so on.
- 5 | So you need to understand the wider | [brief glance at laptop]
 | aspect these different paradigm changes.



Image 7.1.5

- 6 | [new slide (Image 7.1.5)] | [hand gesture]
 | My daughter is now four years old and she has never seen a | broadcast television show
- when it is | moves hand | whips hand
 | coming out from the television, because we are only | watching TV Kaista
- | whips hand again]
 | and these services mentioned.

7 So, | [brief glance at laptop]
 | that is interesting thing to see and quite hard for her to understand that why on earth
 | [whips hand | whips hand again
 | does the, some| kid show, why does it come only once a week and | whips hand again]
 | why do I have to wait.

8 | [whips hand | whips hand again twice]
 | Because on Netflix the next show | begins in 5 seconds|, and bam bam bam bam bam, you get
 those shows coming on.

9 So, | [brief glance at laptop]
 | that is a totally different thing.

10 So, how many of you are using mobile phones | [looks into audience---- | smiles/nods
 | while watching TV? Aah, | quite many.

Good, | [brief glance at laptop]
 | good.



Image 7.1.6



Image 7.1.7

11 So, | [whips right hand (Image 7.1.6) | mic to other hand | whips left hand (Image 7.1.7)
 | you have mobile phone other hand,| | beer in the other



Image 7.1.8

hand, and television | gestures hand (Image 7.1.8)
 | upfront.

12 I think that is | [smiles/laughs | brief glance at laptop]
 | the typical scenario. | Good.



Image 7.1.9

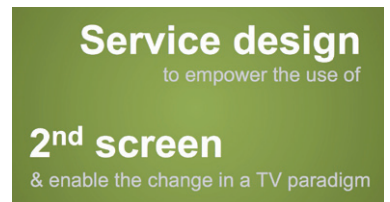


Image 7.1.10

13 | [new slide (Image 7.1.9)] | [brief glance at slide
 | So, according to ComScore Mobile Marketing Metrics | eighty six per cent of mobile Internet users
 are using their devices while watching television.

14 And, it was | [points to audience]
 | approximately same amount of hands as in this audience as well.

15 And | [brief glance at laptop]
 | that, of course, changes pretty much how the broadcast world is behaving

| [brief glance at laptop]
 | in the future.

16 | [new slide (Image 7.1.10)]
 | So the case being today,



Image 7.1.11

| looks at slide---- (Image 7.1.11)
| how do we empower the use of second screen and maybe

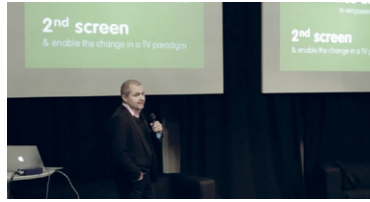


Image 7.1.12

| looks away from slide (Image 7.1.12)
| third screen, and



Image 7.1.13

| looks at slide (Image 7.1.13)
| different devices, through service design to enable



Image 7.1.14

| looks away from slide (Image 7.1.14)
| to change the paradigms



Image 7.1.15

in TV and broadcasting | [brief glance at laptop (Image 7.1.15)]
|.

17 And that is how the discussion | [whips hand]
| started with YLE as well.

Like Juha, Janne opens the presentation with an appeal where a *dramatic development* in consuming popular broadcasts becomes mobilized with a number of representations that are storied on stage. The verbal properties in the sequence are emphasized by the visual consistency of the slides. Other than a vintage-colour-filtered image of outdated television sets, the slides consist mainly of text in the form of headlines. One can note three significant stories that represent this *dramatic development*; the first addresses the general relationship between technological change and behavioural change; the second, a personal experience of this relationship; and the third, an already observed-as-typical relationship in the use of a mobile phones while watching TV.¹

This sequence indicates the *kind of object* Janne is concerned with. Like Juha, Janne does not demonstrate a development, but argues for a particular development over time where the *narrative weight* shifts from 'a paradigm' to 'Janne's daughter' to 'a statistical number' and Janne's immediate 'hallway testing' of that number:

'So how many of you are using mobile phones while watching tv?'

(LINE 10)

Janne's rhetorical question to the audience is most explicit in attempting to frame a relationship between the present audience and an already observed-as-typical development in 'using mobile

¹ Janne's reference to a 'paradigm' and a 'paradigm shift' are reminiscent of the kind of design at a system's level that have been said to extend the design process into the design of relationships between products as systems (in this case popular media consumption), including the products themselves. This diverges from the traditional perception of design as restricted to one product alone. (Jones, 1992)

phones while watching tv'. The significance of the sequence may be determined from the order in which these stories are organized to persuade the outcome of a particular negotiation. It allows Janne to make a case for a kind of development in 'using mobile phones while watching tv' as the typical case in how audiences generally consume broadcasting today.

7.2 *'When using second screen devices in consuming online broadcasting' as designated narrative plot*

Placing the three sequences in line allows me to pinpoint some form of a narrative plot as the *object* for *storied design*. The narrative plot that seems to figure in all three sequences, which allows Janne to segue from one to the next, is of course: 'When using second screen devices in consuming online broadcasting'. This seems to be a narrative plot that is repeatedly dramatized within this sequence. *Narrative weight* is given to a paradigm shift that pertains to a general phenomenon enveloping this *dramatic development* in 'when using second screen devices in consuming broadcasting'. *Narrative weight* is given to Janne's daughter in exemplifying this *dramatic development*, where the second screen even seems to replace the tv as the first screen. *Narrative weight* is given to a statistical number in representing this *dramatic development* as already happening. Additional *narrative weight* is given to the immediate 'hallway testing', which puts that statistical number to the test with the current audience.

As in Juha's case, one can note a passing remark that serves to provide 'gravitas' for a particular form of a *narrative plot* that is being designated, in line (11):

'So, you have mobile phone in one hand, beer in the other hand, and television upfront,'
(LINE 11)

This is immediately followed by a further endorsement in Janne's comment in line (12):

'I think that is the typical scenario. Good.'
(LINE 12)

Indeed, as far as Janne's 'demonstration' of a *dramatic development* goes, this basic understanding in the sentence seems to be most explicit in representing a narrative plot that becomes grounded to some extent. 'Using second screen devices in consuming broadcasting' is provided with a *narrative weight* that matters in a concrete conduct identified within the present audience. This is further pronounced in the use of the transposing personal pronoun 'you', which verbally places the present audience in the shoes of those who are portrayed within the story.

In the following sections, I show that this initial form of a narrative plot – as simplified, yet clarified, and drawn together in the sentence 'using mobile phones while watching tv' – provides an object for storied design that allows Janne to mobilize a *dramatic development* through and within an elaborate *process of objectification*, where the narrative weight shifts and becomes increasingly grounded in concrete representations of technological means, while identifying what *can* be designed about 'broadcast consumption via second screen devices' as the object of design.

7.3 *Objectifying the narrative plot in a temporal separation of events*

Janne continues with a case involving the Eurovision Song Contest. The Eurovision Song Contest is an annual tv song competition, held primarily among the member countries of the European Broadcasting Union. Each participating country submits an original song to be performed on live television and radio and then casts votes for the other countries' songs to determine the most popular song in the competition. After 45 years of participation, Finland finally won the competition in 2007 with 'Hard Rock Hallelujah' performed by Lordi.

The event is preceded by a number of qualification rounds, which are held at the national level. These qualification rounds are also broadcasted. Janne recalls his discussion with the Finnish national broadcasting company YLE to design a service that ‘empowers the use of second screen ... in TV and broadcasting’. In the following two sequences, I show how the *narrative weight* shifts from the representation of a typical scenario in ‘using mobile phones while watching TV’, to a representation of the Eurovision broadcasting programme of events and the inevitable temporal organization of a single event.

TRANSCRIPT 7.2



Image 7.2.1



Image 7.2.2

- 18 | [new slide (7.2.1)]
| We can launch this meme of event-hype-stamina.
- 19 | [looks at slide--- (Image 7.2.2)]
And in this case | we started with, or YLE started with the Uuden Musiikin Kilpailu, UMK,
| looks away from slide]
or their own show | that is kind of the Finnish show how they get talent and how to narrow
| [looks at slide---]
| down the talents for Eurovision.



Image 7.2.3



Image 7.2.4

- 20 | Then there were multiple | points at slide (Image 7.2.3) | looks away from slide]
| shows, UMK finals |, and so on, and Krista was elected.
- Nice. | [looks at slide---]
|
- 21 | [points at slide (Image 7.2.4)]
Then slowly | the tension and the traction slowly grows up.
- 22 | [looks away from slide]
The Eurovision opening party| was there. It was televisioned, and so on.
- 23 | So it gets more people interested in what is going on.

- 24 And then of course, at the end there is the grand prize and that then catches the rest and has the most of the hype. | [looks at slide---- | the Eurovision finals,
- 25 So, this | looks away from slide] | is in a larger scale, this is what is happening, and how people are engaged with the brands, with the singers, and with the different countries representing.

In the first sequence, one can note a representation of a broadcasting programme for the Eurovision Song Contest. This programme consists of a number of events, such as ‘Uuden Musiikin Kilpailu UMK’, ‘UMK Finals’, ‘Eurovision’s Opening Party’ and ‘Eurovision Finals’ that are placed along a sequence in time. The sequence of events is further indicated by three big arrows between the events. In the background one can note a thin yellow line, referred to as ‘event hype stamina’, that follows a plot that gains momentum exponentially in the direction indicated by the arrows. At the end of this plot, in the right upper corner, one can note an explosion symbol. *Narrative weight* has now shifted to the temporal separation in the sequence of events that take place in this contest (lines 19-20). The references made in ‘Then’ (line 20), ‘Then’ (line 21) and ‘And then’ (line 24) indicate that additional *narrative weight* is given to the strict order of sequence in which these events take place. In the second sequence, Janne continues a temporal separation of Eurovision, where the *narrative weight* shifts and becomes increasingly grounded in a further temporal separation of different stages in a single Eurovision event.

TRANSCRIPT 7.3



Image 7.3.1

- 26 | [new slide (Image 7.3.1)] | [looks at slide---- | looks away from slide] | [whips hand | So, | basically, what happens before | the actual event, | being it
- final, or | whips hand | whips hand] | [looks at slide---- | whips hand] | whatever, and | what happens during the event, and what happens | [whips hand] | looks away from slide] | after the event.
- 27 Uh, and taking into account, that people might have different| [brief glance at laptop] | [whips hand | mobile | phones and different
- | whips hand | whips hand | [brief glance at laptop] | whips hand] | laptops and | tablets | and | televisions,
- 28 | [whips hand | hand gesture | hand gesture] | [brief glance at laptop] | they want to use | all those different devices, | throughout the journey, and during these different phases.

The slide contains a representation of a single Eurovision event, where the event itself becomes organized in a temporal separation of ‘Before’, ‘During’ and ‘After’ a given Eurovision event. The *narrative weight* has now shifted from a general scenario of ‘using mobile phones while watching TV’ to three concrete stages that have been identified where ‘using second screen devices in consuming broadcasting’ can occur. More so than the purported ‘event hype stamina’ (although ‘using second screen devices’ in

consuming the programme may be influenced by this development), the consumption of the Eurovision Song Contest is supposed to *follow* this sequence of events as plotted over time and this temporal organization of a singular event. What was previously designated as ‘when using second screen devices in consuming broadcasting’ is now given further *narrative weight* in a concrete temporal separation that can be understood to be formal to anyone who is following the Eurovision Song Contest programme. The basic narrative plot of ‘when using second screen devices in consuming broadcasting’ has now been designated in a sequence over time, where the *narrative weight* corresponds with a concrete temporal separation that is grounded *in time*.

If it was not clear from the previous sequences, the propositional advance found in this sequence shows that a *dramatic development* ‘when using second screen devices in consuming broadcasting’ needs to be given form and needs to be explicitly negotiated in the presentation: ‘and taking into account, that people *might* have different mobile phones and different laptops and tablets and televisions, they *want* to use all those different devices, throughout the journey, and during these different phases’ (lines 27–28). Whereas the temporal separation seems inevitable, the proposition of whether ‘they want to use all those different devices’ is negotiated. Like in Juha’s case, Janne is suggesting a *dramatic development* rather than demonstrating it.

7.4 Objectifying the narrative plot in the ‘Event page concept’

It is interesting to compare the following sequence with the previous two sequences because it shows how the basic narrative plot in ‘when using second screen devices in consuming broadcasting’, as grounded in a temporal organization of a singular event, allows Janne to further mobilize a *dramatic development* in the representation of the ‘Event page concept’ where the *narrative weight* shifts and becomes further grounded in three types of second screen devices. This shift in *narrative weight* corresponds with a shift in the subject that is staged. Janne is no longer dramatizing the Eurovision Song Contest, but explaining the function of the ‘Event page concept’ itself in terms of a specific method of design.

TRANSCRIPT 7.4

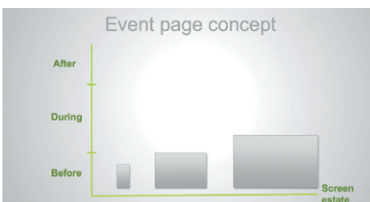


Image 7.4.1



Image 7.4.2

29 | [new slide (Image 7.4.1)]
| And uh, the kind of a conceptual idea behind the event page that we conceived, is that, uh,



Image 7.4.3



Image 7.4.4

| [points to slide (Image 7.4.2)] | [points at slide (Image 7.4.3)]
| on the one axis you have the time scale, as discussed, and | on the other axis you have got the screen estate.

30 | [points at slide, gestures at different screen estates one by one (Image 7.4.4)]
So, you have | mobile phone, you have tablet, laptop, and so on.

31 And the idea is to cater for all of these different devices, all of these different timeframes, within the same page, within the same concept.

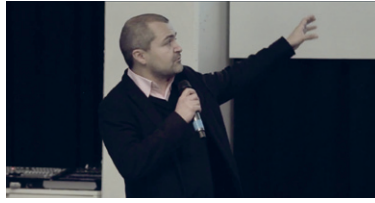


Image 7.4.5



Image 7.4.6

32 And of course, you can easily imagine that, uh, | [points at slide (7.4.5)]
different device on different timeframe.

33 So, it is kind of, uh, | [hand gesture, as if assembling something in mid-air (Image 7.4.6)]
multiple page idea.

34 And, uh, yes, we should understand the context, understand the different user needs, based on this, uhm, matrix, so to say.

The ‘Event page concept’ consists of a diagram that pertains to two axes, one representing the temporal separation of a single event; the other, three types of second screen devices: ‘So, you have mobile phone, you have tablet, laptop, and so on’. The composition in the diagram ‘draws together’ (Latour 2012) a systematic relationship between this temporal separation and the three types of second screen devices. *Narrative weight* has now shifted to the representation of three types of concrete devices: mobile phone, tablet and laptop. That is, in addition to the temporal separation, the *dramatic development* in ‘when using second screen in consuming broadcasting’ is further grounded in the availability of these three types of devices.

The *dramatic development* is not represented by the Eurovision programme or ‘Event hype stamina’; rather, it is represented in the concrete method of separation whereby a Eurovision event has been divided into three different stages and second screen devices into three different types. By method of separation, each stage and type of device can now be addressed as somewhat independent units of design that fit an overall *narrative plot* that is now designated in that range of stages and types of devices within a ‘multiple page idea’ (line 33). One may understand the ‘Event page concept’ as a method to visually represent the *dramatic development* in a ‘multiple page idea’ that was also phrased earlier in line (28) ‘they want to use all those different devices, throughout the journey, and during these different phases’, as telescoped and drawn together into one single diagram.²

This sequence shows a form of storied designing where the basic plot of ‘when using second screen devices in consuming broadcasting’ allows a *dramatic development* to be mobilized across the presentational pane with a representation of the ‘Event page concept’, where the ‘Event page concept’ further shows as much as it objectifies the *narrative plot* within a specified range of relationships. In this *interplay of objects*, *narrative weight* in ‘when using second screen devices in consuming broadcasting’ has now shifted to a concrete separation that is both temporal as well as material: ‘we should understand the context, understand the different user needs, based on this, uhm, matrix, so to say’ (line 34).

7.4.1 The narrative weight in the ‘Event page concept’

Like in Juha’s presentation, it seems that in whatever is represented about the *dramatic development* in ‘using second screen devices when consuming broadcasting’ – whether this is with the concept of paradigm change, Janne’s daughter, a statistical number or a broadcasting programme, or an ‘Event page concept’ – it is in what becomes *sequentially* represented about the *dramatic development* that makes a difference in the form that is given to the narrative plot. Like in Juha’s presentation, the designated narrative plot is not only undemonstrated, but its narrative weight is in motion. Furthermore, like with

² The diagram in question is a compilation of various scenarios, a range of possible customer journeys, that refer to a future use. This is reminiscent to the definition of design as an activity that imagines possible futures. (Jones 1992)

Juha's servicescape, considering the scale in which *narrative weight* is given, it is unlikely that this kind of object can be demonstrated within a presentation.

As an *object of storied design*, the 'Event page concept' is on par with Team 2's storyboard, Team 5's molecule diagram, or Juha's customer journey in representing a specific relationship in what is drawn together in the matrix. The aspects that are storied and designed with the matrix allow me to show how the method of representation in the matrix stands at an intersection between the *object of design* in 'broadcast consumption via second screen devices', which in totality cannot be designed, and a process of storied designing that identifies what *can* be designed about it (See figure 7.2).

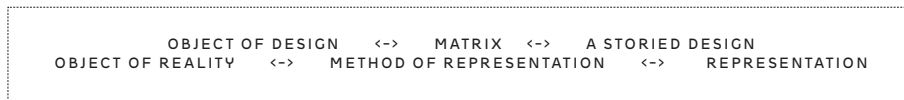


Figure 7.2: Visualizing the relationship between the object of design and a storied design.

Within the matrix, one can note a visual contrast between the two axes and the white space that these two axes flank. Whereas the two axes are specific with respect to what *cannot* be designed (time; availability of second screen devices), the white space is specific regarding what can be, while, paradoxically, being less specific about it. In fact, this is what the audience is asked to 'imagine' in line (32):

'And of course, you can easily imagine that, uh, the needs of the customer are totally different with different device on different timeframe'

(LINE 32)

The matrix makes an explicit distinction in the separation of time and devices, which are not subject to design and therefore stand 'outside' the matrix, and the impending range of relationships between these that are subject to design, and therefore stand 'within' the matrix (See figure 7.3). The focal point in the matrix is on the 'question mark' that the audience is asked to imagine in that white space between those axes, currently occupied by three ideational sizes of screens. That 'question mark' in the diagram locates the range of relationships as the *object of storied design*, as much as it objectifies it further in a separation that is both temporal and material.



Figure 7.3: Indication of what can be designed in an online broadcast service

Similarly, one can also note 'question marks' in the student presentations and Juha's presentation that identify what *can* be designed about their respective objects of design. One can note the 'question mark' in Team 2's ticket in the storyboard as a placeholder, which becomes designed in the ticket that follows. One can note the 'question mark' in Team 5's molecule diagram, where the whole white space around the molecule represents a placeholder, which is then designed in the CAD rendering of cooking premises. One can note the question mark in Juha's customer journey, where the arrows indicate placeholders, or Juha's map, where everything between the lined walls indicates a placeholder; both of these are designed in an interior design.³

³ A comparison with the pitchman is not in order here, since the pitchman did not design the Super Chamois.

What this comparison further points to is that, when it comes to designating a *narrative plot*, the chosen method of representation *matters* a great deal in what is drawn together and given form in the *narrative plot* and about what *can* be designed about it. Team 2's storyboard (separation of events and material means) draws an object together differently from, for instance, Team 5's molecule diagram (separation of organizational means). Juha's customer journey (separation of events) does so differently from, for instance, the floorplan of the Fimlab facility (separation of space). Each of these methods of representation looks different and shows what can be designed about the narrative plot differently. Likewise, Janne's method of representation is *in* the 'Event page concept' (separation of events and devices). Janne's *narrative plot* is designated *in* the 'Event page concept' as a method in the whole, as much as the method identifies what *can* be designed about this narrative plot.

Furthermore, this comparison emphasizes the fact that for an *object of design* that does not allow for demonstration, these representations are all that one sees about it. The narrative plot that is designated in the 'Event page concept' allows for a *dramatic development* to be mobilized with a representation of the *object of design*, where the object of design is both storied and designed with a matrix as an *object of storied design*. What the 'Event page concept' shows is that the object of design is subject to design, but only to a limited extent, where the *narrative weight* in the axes of the matrix defines this limitation. That is, the matrix provides a simplified set of conditions within which to design the online broadcast service.⁴ The problem of designing is effectively reduced to a concrete temporal separation and three different devices. It is good to note that TV does not seem to be amongst them, since this device could be counted as a 'first screen' and may not be under Janne's immediate control in the first place.

According to this shift in *narrative weight*, Janne is no longer dramatizing the Eurovision Song Contest. Rather, he is explaining the structure in the representation of the 'Event page concept' itself and evaluating its structure as a means for production (line 31):

'the idea is to cater for all of these different devices, all of these different timeframes, within the same page, within the same concept.'

(LINE 31)

To emphasize the point, the shifting *narrative weight* in the 'Event page concept' is *storied* and *designed* in regards to an *object of design* that in totality cannot be demonstrated or designed, as much as it is storied and designed within a *process of storied designing* that identifies what *can* be designed about the object of design with the 'Event page concept' as an *object of storied design*.⁵

7.5 Objectifying the narrative plot in a user interface

It is interesting to compare the following sequence with the previous sequence because it shows how a *dramatic development* in the 'Event page concept' is further mobilized in the representation of a prototype user interface of a website, where the *narrative weight* shifts and is further grounded in concrete digital components. I further show how the shifting *narrative weight* from the 'Event page concept' to the representation of a prototype stands at the intersection between 'broadcast consumption via second screen devices' as an *object of design* that in totality cannot be designed, and a *process of storied designing* that identifies what can be designed about it, with the prototype website as a *storied design*.

The prototype website consists of two types of webpages that correspond to the relationships that are suggested in the 'Event page concept'. These two types of webpages are briefly described in terms of when they are used: the first is for the lead-up to the Eurovision event. The second is live during the Eurovision event.

④ The matrix depicted in the diagram effectively segments the dramatic development into a finite number of permutations, based on the two main objectifications made along the two axes. Theoretically, this allows for at least nine permutations, if one limits oneself to the intersections of the two categories. This number, however, will increase if we would consider the use of multiple screens. This approach is reminiscent of Jones' mantra on the traditional design method: 'to turn a complicated problem into a simpler one'. (Jones, 1992). In Jones' words, this diagram would involve the use of a 'pattern' as a traditional design method, or as he states it: 'This recoding, or restructuring, process depends upon the use of a pattern [in this case a drawing or a mental picture of the design problem] which brings crucial aspects to the fore.'

⑤ In this regard, the 'Event page concept' is also reminiscent of a business analysis model that stands at a strategic intersection between technology and a market segment. This observation points out that depending on the explanation that is given, the narrative plot can be designated in alternative ways.



Image 7.5.1



Image 7.5.2

35 | [new slide (Image 7.5.1)] | [brief glance at slide] | [whips hand]
 | So, | couple of examples, | how did we sketch the different stuff.

36 | [looks at slide----] | points at slide (7.5.2)
 | This is a page how | would it look, uh, before the event.

37 | And it is quite easy to see that there is this | points at slide
 | looks away from slide] | grey banner that says how many hours
 | or days you have until the event starts.

38 | So, | [looks at slide----]
 | it is kind of a ticker going downwards.

39 | And, uh, | points at slide
 | meanwhile you're waiting for the show to start, you have



Image 7.5.3



Image 7.5.4

| points at slide (Image 7.5.3) | moves hand across slide (Image 7.5.4) | looks away from slide)
 | different video clips, | different content, | you have



Image 7.5.5



Image 7.5.6

| [whips hand thumb stretched (Image 7.5.5)] | makes rolling gesture with hand (7.5.6)
 | interviews, stuff like that, to be presented, | to keep up the hype and maintain the event hype.

This sequence contains a representation of the first webpage. In it, one can note various digital components such as web content, images, logos, custom widgets and browsing functionalities typical of web pages, such as menu structures, buttons and a search bar. In the *staged interplay*, Janne is more precise in giving *narrative weight* to those significant components that would otherwise be swamped by the high fidelity of other visible but less significant components. In what otherwise looks like any regular web page, Janne draws attention to the main standout component in lines (37) and (38): ‘kind of a ticker’. What was previously dramatized as ‘Event-hype stamina’ has now become grounded in the concrete component ‘kind of a ticker’.

‘this grey banner that says how many hours or days, you have until the event starts. So, it is kind of a ticker going downwards’

(LINE 37-38)

This ‘kind of a ticker’ is accompanied by other concrete components, in terms of web content, that are not easily spotted as significant, but need to be narrated as well in line (39): ‘video clips’, ‘different content’, ‘interviews’ and ‘stuff like that’. Together, these components build up to a user interface of a concrete web page (albeit still a prototype) that should hold up to its ‘name’, ‘BEFORE’ and its ‘promise’, ‘to keep up the hype and maintain the event hype.’ Janne continues with the following slide.

TRANSCRIPT 7.6

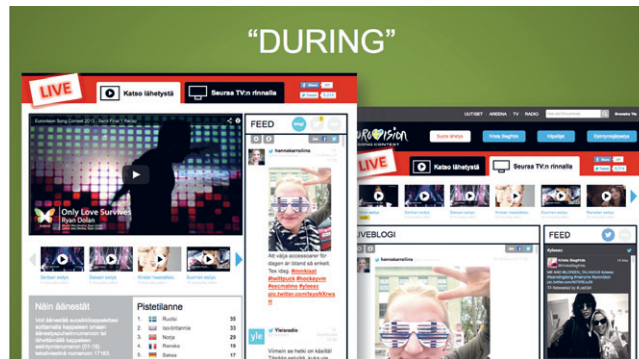


Image 7.6.1

40 | [new slide (Image 7.6.1)]
 | Then, for example, during the event,
 || [points at slide⁶]

41 | [passing remark----
 | and these are of course just, uh, || as you can see, quite a draft prototypes. So, don't think
 | that these are the final ones. | [passing remark]

42 | [looks at slide----7
 | On the during prototypes, there might



Image 7.6.2

⑥ This gesture is interpreted from a brief capture of a blurred arm, presumably as a result of a back swinging arm, when the arm moved back to its natural position next to the hip.

⑦ This gesture was started earlier, but was only captured in mid-action, at this point.



Image 7.6.3

| points at slide (Image 7.6.2) | wiggles hand with two fingers (7.6.3) | looks away from slide]
 | be like, uh, | two tabs, meaning that, | do you want to



Image 7.6.4

|| [whips hand w. extended thumb (7.6.4)]
 | [looks back at slide----
 || watch | the television show, or do you want



Image 7.6.5

|| [whips w. index (Image 7.6.5)]
 | [looks away from slide]
 ||| to follow it next to the television.



Image 7.6.6



Image 7.6.7

43 | [looks at slide---- | [points to slide (Image 7.6.6)] | [gestures hand (Image 7.6.7)]
 | And, uh, enabling stuff like || this, | looks away from slide
 | different contents to different audiences. | you can actually || produce different content, or serve
 44 | looks at slide---- | looks away from slide
 | And, uh, actually, the real concept does | melt these together.
 45 So it's not that user changeable.
 46 | [looks at slide---- | looks away from slide]
 | It's more like, uh, we expect you to do one or another, | depending on your device.
 47 | [brief glance at laptop]
 | Okay, so those are just quick ideas, how did we do it.

The second representation of a webpage actually consists of an enhancement where two sub-representations are shown side by side, which falls under the title 'DURING'. This is an enhancement because typically one would not be able to view them side by side, but either one or the other. This shows how the representation of the webpage is framed in the slide. Similar to the first webpage, one can note web content and browsing functionalities. One can also note various concrete components, videos, tweets, selfies and other specialized content specific to Eurovision, such as charts. Amongst these components, in what otherwise does not necessarily look very different from any other regular webpage, Janne draws attention to the main standout component in line (42): 'two tabs'. The inclusion of 'two tabs' allows for a choice 'when using second screen devices in consuming broadcasting' of Eurovision:

'do you want to watch the television show, or do you want to follow it next to the television.'
 (LINE 42)

What was previously dramatized as a 'multiple page idea' has now become grounded in the concrete component of 'two tabs'. Together these digital components partly build up to a user interface of a concrete website that should hold up to its name ('DURING') and its promise ('serve different contents to different audiences').

These two sequences show a form of storied designing where the temporal separation of events and the separation of three specific devices allow for a *dramatic development* to be mobilized across the presentational pane with a user interface of a website, where

the user interface further shows as much as it objectifies the narrative plot. In this interplay of objects, *narrative weight* has now shifted to concrete digital components of a ‘kind of ticker’ and ‘two tabs’.

7.5.1 *The narrative weight in ‘a kind of ticker’ and ‘two tabs’*

The interplay of objects between the ‘Event page concept’ and the user interface of the website shows how a narrative plot needs to be designated and given form in the first place in order to allow a *dramatic development* to be mobilized across the presentational pane. Like Juha’s presentation, Janne’s presentation also shows how this happens through an elaborate *process of objectification* where the *narrative weight* shifts unidirectionally and is increasingly grounded in and through a sequence of concrete methods of representation that show and objectify this narrative plot further. For instance, one can note how the user interface of the website is redrawn and explained in a range of relationships that was already drawn and explained with the ‘Event page concept’.

As much as what is objectified and designed in ‘a kind of ticker’ and ‘two tabs’, these components also become storied in ‘to keep up the hype and maintain the event hype’ and ‘do you want to watch the television show, or do you want to follow it next to the television’. The relationship between a *storied design* and a *process of storied designing* is particularly crucial here. Both the components of a ‘kind of ticker’ and ‘two tabs’, like the buttons on Juha’s ‘turn slip machine’ could be regarded as rather generic. Such components are mundane and widespread, yet, in themselves, do not necessarily explain the relationship they objectify. Components such as the ‘two tabs’ need to be storied in one form or the other: ‘two tabs, meaning that, do you want to watch the television show, or do you want to follow it next to the television’ (line 42), which is also written on the two tabs themselves (in Finnish). That is, in the shifting narrative weight, one can note that Janne is *storied designing* a user interface of a website. Indeed, like Juha’s servicescape, the user interface can also be understood as a *storied design*.

Furthermore, in what is storied and staged about the ‘two tabs’, the narrative weight that is given to the component also identifies what *can be designed* about ‘when using second screen devices in consuming Eurovision’ – that is, the specific relationship between different types of second screen devices that the ‘two tabs’ provide a grounding for: ‘produce different content, or serve different contents to different audiences [...] depending on your device.’ Such a relationship in the object of design can only be made explicit in a *process of storied designing* where the *object of design* (when using second screen devices in consuming Eurovision) is both storied and designed with a *storied design* (user interface).

7.6 *Objectifying the narrative plot with ‘live content’*

It is interesting to compare the following three sequences with the previous two sequences because they show how a *dramatic development* in a user interface is further mobilized with more representations of the user interface within the setting of user testing, where the *narrative weight* shifts and is further grounded in the concrete component of a ‘live twitter feed’ bar. This sequence shows the *process of objectification* as unidirectional; the *narrative weight* continues to shift and is incrementally grounded in a further representation of ‘concrete’ digital means, where the *narrative weight* identifies what *can be designed* about the relationship between different types of devices in ‘when using second screen devices in consuming Eurovision’ as an *object of design*.

The dramatic development is explained explicitly through a process of design: user testing. The first two sequences explain a particular process of design, after which the third sequence continues the process of objectification in which the narrative plot is further objectified. I will briefly go through the first two sequences and pay more attention to the third.



Image 7.7.1



Image 7.7.2

48 | [new slide (Image 7.7.1)] | [looks at slide----] | looks away from slide]
 | And then we went to the event. | And it was in VLE Pasila. | They have this Iso Paja, a big
 centre.

49 | [brief glance at slide] | [brief glance at laptop]
 | So, as you can see, | there was lots of people.

50 | [hand gesture] | [brief glance at laptop]
 We did, uh, | short tests, around twenty minutes | interviews with pairs. So, there were around

| [brief glance at laptop] | [looks at slide----]
 | forty people, ranging from 20 to 40 years. And of course, | male and female as well.

51 | points at slide (Image 7.7.2) | brief glance away from slide and back
 And, uh, | as you can see, the group is not | your ordinary kind of bus traveller on Monday morning
 Espoo⁸



Image 7.7.3



Image 7.7.4

52 | [whips hand (Image 7.7.3)]
 They are a bit more extreme users and, uh, | looks away from slide]
 ||| they are really enthusiastic about it.



Image 7.7.5



Image 7.7.6

53 | [rolling gesture hand---- (Image 7.7.4)] | gripping gesture hand (Image 7.7.5)]
 So, | they are really in, what you are doing, and what you are | trying to sell, as a concept for their
 minds.

54 | [looks at slide----] | [points at slide (Image 7.7.6)]
 And | that is of course one key thing why of course you ||| looks away from slide]
 ||| as well should be doing in event

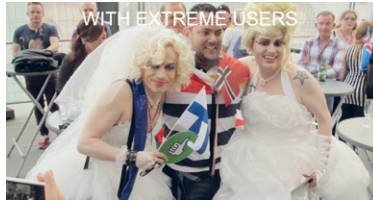


Image 7.8.1



Image 7.8.2

55 | [new slide (Image 7.8.1)] | [smiles]
 | And yeah, extreme users. So, this was the kind of people | that are coming there.

56 | | [whips hand]
 | And, uh, when you are showing them prototypes, it's a bit different than just doing | focus groups.

57 | [glance at laptop] | [whips hand extended thumb (Image 7.8.2)]
 | So, when you observe extreme users, | their needs are amplified.



Image 7.8.3



Image 7.8.4

58 | [brief glance and points at slide (Image 7.8.3)] | [whips hand---- (Image 7.8.4)]
 | Might be also their looks, but at least the needs are amplified, they are more visible;

they are more | [gestures hand]
 | upfront.



Image 7.8.5



Image 7.8.6

59 | [brief glance at laptop] | [whips hand (Image 7.8.5)] | [brief glance at laptop]
 | So, it helps to find meaningful| needs | that are not necessarily

| [rolling hand gesture (Image 7.8.6)]
 | addressed by normal people in normal circumstances.



Image 7.8.7



Image 7.8.8

60 | | [gesture hand (Image 7.8.7)]
 | And you get better | feedback.

61 | | [looks at slide----] | [points at slide (Image 7.8.8)] | [looks away from slide]
 | And, uh, however, the needs that| these people have, they are often | the same than



Image 7.8.9



Image 7.8.10

normal people | [whips hand (Image 7.8.9)] | [gesture hand (Image 7.8.10)]
 | have. But it is easier to | grab them, for example,
 | [brief glance at laptop] | [brief glance at slide then laptop]
 | being with extreme users, in live situations. |

The photographs contain a great deal of detail that is telling in regards to what is storied about them. However, despite a number of general references, further details in the photographs are left to speak for themselves. It becomes obvious that, similar to Juha's presentation of the prototyping environment, Janne is dramatizing a particular process of design. One may understand the photographs as visual documentary material that highlights particular instances of this design process, with which Janne describes his experience in testing with what he calls 'extreme users': 'So, it helps to find meaningful needs' (line 59).

TRANSCRIPT 7.9



Image 7.9.1

62 | [new slide (Image 7.9.1)] | [glance at laptop]
 | So, uhm, another important aspect of being there in the live event, is to | actually



Image 7.9.2



Image 7.9.3

| [whips hand (Image 7.9.2)] | [glance at laptop]
 | utilize the live content. |

63 | So, uh, because, for example, at least in the | events and || [glance slide]
 | [gestures and moves hand---- (Image 7.9.3)]
 || the event page concept.



Image 7.9.4



Image 7.9.5

the actual what happens, | gestures hand, stretches arm (Image 7.9.4) | and back
 | the content, that is coming through | the prototype, actually
 is pretty big deal | rolling gesture (Image 7.9.5) |
 | for the end users.



Image 7.9.6



Image 7.9.7

64 | [hand gesture and looks at hand---- (Image 7.9.6) | gesture (Image 7.9.7)
 They don't | care about the screen estate that, have you done it nicely or what is | the shade of the buttons.



Image 7.9.8



Image 7.9.9

65 | whips hand (Image 7.9.8) | chopping gesture (Image 7.9.9)
 | They are interested, does Krista win or not. |



Image 7.9.10



Image 7.9.11

66 | gesture (Image 7.9.10) | gesture (Image 7.9.11)
 | So, this is something that affects quite much of the user | testing.



Image 7.9.12



Image 7.9.13

© Krista Siegfriids was elected to represent Finland in Eurovision 2013.

67 | [glance at laptop] | [upward gesture---- (Image 7.9.12) | body movement (Image 7.9.13)
 | So, you know, if Krista is | moving up in the charts, people | pay more attention.



Image 7.9.14

68 They | body movement (Image 7.9.14)
| might change device.



Image 7.9.15

69 They might | body movement (Image 7.9.15)
| go to television.



Image 7.9.16

70 Or, they will do something totally different, than if | hand gesture (Image 7.9.16)
| Finland is losing.



Image 7.9.17



Image 7.9.18

71 And this | [gesture---- (Image 7.9.17) | gesture (Image 7.9.18)]
| changes the testing and testing events, and the interviews quite | radically.



Image 7.9.19



Image 7.9.20

72 | [glance at laptop] | [gesture---- (Image 7.9.19) | gesture (Image 7.9.20)]
| And of course, this | radically changes how we, as designers, need to | think about these services.

73 And that is why it is really important to, of course, not to use | [smiles]
| Latin anymore, but also use



Image 7.9.21



Image 7.9.22

live content, like live | [whips thumb---- (Image 7.9.21) | whips index (Image 7.9.22)]
| twitter feeds, or | whatever is in your service, if it is not video.

Like in Juha's case, the three sequences explain as much as they justify the process of testing itself as a specific method of design. These are accounts of designing (Lloyd 2002) where experiential knowledge, obtained through practice, is dramatized on stage. Other than stories about 'extreme users', these stories also evaluate a particular way of doing as the right way of doing in regards to what one ought to do within the profession at large (Oak 2006): 'And that is of course one key thing why of course you as well should be doing in-event testing' (line 54).

The last slide shows a photograph that is taken from an angle from which one can note a laptop screen and a TV in the background. The TV shows the live Eurovision broadcast and the laptop screen shows a webpage that is similar to the one shown previously with the prototype. On the webpage one can note the user interface with the distinctive component of 'two tabs' amongst other components such as video content, a 'live twitter feed' bar, logos, etc. The photograph clearly represents an instance in 'when using second screen devices in consuming Eurovision', where a relationship between a specific second screen device and the TV is drawn together.

When isolating the drama of designing, one can note the significance in Janne's observation of what users do in regards to the inclusion of 'live content' in line (62):

'Another important aspect of being there in the live event, is to actually utilize the live content [...] So, you know, if Krista is moving up in the charts, people pay more attention [makes body movement as if moving forward to pick up an imaginary key from floor], they might change device, they might go to television, or they will do something totally different, than if Finland is losing.'

(LINE 62)

The *narrative weight* has now shifted to the inclusion of a 'live twitter feed' bar that is displayed right from the live video content on the webpage. This shift in *narrative weight* is emphasized in the *staged interplay* where Janne's is re-enacting the observation in a storyboard-like staged representation of it. In this staged representation, Janne's body simulates and shows what is explained in the observation (Figures 7.9.13, 7.9.14 and 7.9.15), where Janne is physically acting out what the user does.

This sequence shows a form of storied designing where the user interface of the website allows for a *dramatic development* to be mobilized across the presentational pane with a representation of an observation that is staged in a storyboard-like form that further shows as much as it objectifies the narrative plot. The significance in Janne's storyboard-like staged representation concerns how a particular relationship in 'when using second screen devices in consuming Eurovision' can be further objectified in the inclusion of 'live content'.

7.6.1 *The narrative weight in 'live content'*

As much as what is objectified and designed by the addition of a 'live twitter feed' bar, this component also becomes storied in a storyboard-like staged representation. In this instance, it becomes plainly clear that the dramatic development with an additional representation of the 'Live content' component cannot be demonstrated. In fact, other than the 'live twitter feed' bar as a widget, the 'live content' that streams through it cannot be designed. The relationship between a *storied design* and a *process of storied designing* is particularly crucial here. Like the 'two tabs', a 'live twitter feed' bar might not necessarily explain the relationship it objectifies. In what is storied and designed about the 'Live twitter feed' bar, the *narrative weight* that is given to the component also identifies what *can be storied but not designed* about 'when using second screen devices in consuming Eurovision' – that is, the specific relationship between different types of second screen devices can be designed in so far as a 'live twitter feed' bar can be added as a designed widget to the user interface, but the purpose of this additional hypermedia component is ambiguous and can only be made explicit within a storied representation of it:

'They might change device. They might go to television. Or, they will do something totally different, than if Finland is losing.'

(LINES 68-70)

Janne is incrementally *storied designing* the object of design with a user interface as a *storied design* that can only be represented in a *process of storied designing*. Like in Juha's servicescape, this kind of object cannot be demonstrated. It pertains to a narrative plot that is designated in the 'Event page concept', through which identified components such as the 'kind of a ticker', 'two tabs' and 'live twitter feeds' become storied. However, Janne cannot show how the 'Event page concept', as objectified in the user interface, changes the use of second screen devices in consuming broadcasting, because the narrative weight is partly in the realm of hypermedia and cannot be shown in the first place, only represented. Like in Juha's presentation, the *dramatic development* is represented in so far as what is represented about it constitutes all there is that is mobilized about it.

Like in Juha's presentation, what becomes mobilized across the presentational pane is not what happens in 'when using second screen devices in consuming Eurovision' per se, but a sequence of interplaying representations of what happens from the point of view of a specific method of storied design. Janne's *object of design* consists of the whole concept of 'when using second screen devices in consuming broadcasting' via some form of an 'Event page concept' that needs to be identified in a user interface in the first place. It covers the entire designed website as an online service, which in fact covers much more than the user interface that Janne is presenting here and much more than Janne *can* present at all within a presentation. That is, in the process of objectification, the narrative weight shifts to the inclusion of digital components that represent parts of 'when using second screen devices in consuming Eurovision', whereby what is storied and designed in a user interface becomes a heuristic means in identifying what *can* be designed about it and what *cannot*.

7.7 *Objectifying the narrative plot with 'the same page concept, but totally different lay-outs'*

The following two sequences provide a concluding comparison where the *narrative plot* in 'when using second screen devices in consuming broadcasting', as incrementally objectified in an 'Event page concept' and a user interface, allows for a *dramatic development* to be mobilized one last time with further representations of the 'Event page concept', where the *narrative weight* is grounded in other user interfaces that were produced in two other broadcasting projects. This sequence shows how the *process of objectification* continues with two other projects, where the *narrative weight* continues to shift and becomes grounded in 'the same page concept, but different lay-outs', as much as it continues to identify what *can* be designed about 'when using second screen devices in consuming broadcasting' as an *object of design* that only makes sense as an object that is both storied and designed: *a storied design*.

In the following two sequences, Janne leaves Eurovision aside and continues with the significance of the 'Event page concept' in how it can be used in other broadcasting projects.



Image 7.10.1



Image 7.10.2

74 | [new slide (Image 7.10.1)]
 | And, uh, well, then, later on, after the event,

75 | as I said that the | [looks at slide---
 | repetition is a good thing,

76 | we went on with the iterations | looks away from slide]
 | and the co-creation.

77 | [glance at slide] | [gestures (Image 7.10.2)] | [looks at slide----
 | This is the same page | template, and | as you can see it can



Image 7.10.3



Image 7.10.4

| [points at slide (7.10.3)] | looks away from slide]
 | have a different | lay-out or visuals.

78 | It's not the point [to have the visuals], | [gesture (Image 7.10.4)] | [glance at laptop]
 | the point | is to have the page that



Image 7.10.5



Image 7.10.6

| [gesture---- (Image 7.10.5)] | gesture (Image 7.10.6)]
 scales, uh, | in time-wise and in | device-wise.¹⁰

79 | [glance at laptop] | [glance at slide]
 | And, uh, for example | with doc-ventures,



Image 7.10.7



Image 7.10.8

| [gesture (Image 7.10.7)] | [gesture (Image 7.10.8)] | [glance at laptop]
 the series is also | quite long, and we are doing | the user tests | alongside

¹⁰ Referring to the vertical and horizontal axes of the diagram.



Image 7.10.9



Image 7.10.10

	[new slide (Image 7.10.9)]	
	with the live programmes that are going on, on television.	
80	[glance at slide]	[looks at slide----
	So, that is really important that, it is fine tuned, even	it is deployed.
81	points at slide (Image 7.10.10)	looks away from slide]
	Here is just the same website, viewed on the mobile,	and here you can see that the
	[glance at laptop]	[glance at slide while gesture]
	actual video content is much more	upfront than it was in the previous model.

This sequence consists of two photographs. Each photograph shows a webpage. One webpage is displayed on a laptop, while the other is displayed on a tablet. Each photograph is clearly framed by the angle from which it was taken and by the scene that takes place in the photograph. Although the photographs contain a great deal of detail, Janne does not specifically discuss what is displayed in them. Rather, Janne points out the overall difference in how the respective user interfaces look like in comparison with the one used for Eurovision:

'This is the same page template, and as you can see it can have a different lay-out or visual.'

(LINE 77)

It is the same but different. That seems to be all that is important for now. In fact, Janne wants to make sure the audience understands that the website represents the same page template, but with a different user interface lay-out. This is further emphasized by the suggestion that the 'Event page concept' is independent from any visual form, as stated in line (78):

'It's not the point [to have the visuals], the point is to have the page that scales, uh, in time-wise and in device-wise.'

(LINE 78)

That is, as much as narrative weight has shifted to 'a different lay-out', further narrative weight is given to the simple fact that the 'page that scales' is displayed on different second screen devices, and that the user interface looks different on each kind of device, for instance, in terms of how the video content is placed more or less upfront. The significance of this order is highlighted in the following sequence which represents a website for a second broadcasting project.

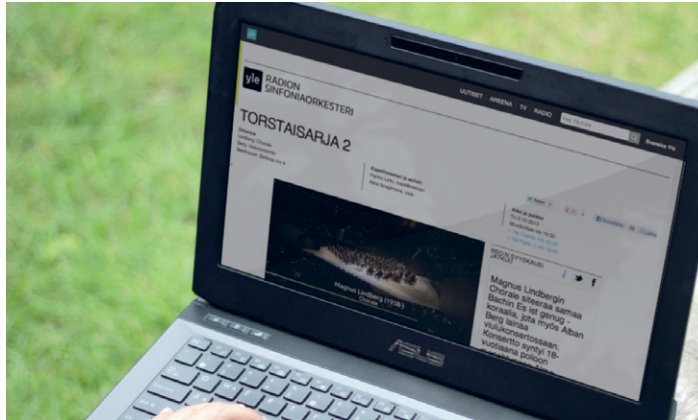


Image 7.11.1

82 [new slide (Image 7.11.1)] | [glance at slide]
 | And, probably in the last, is the RSO. | radio symphony orchestra.



Image 7.11.2

83 | [gesture (Image 7.11.2)]
 And here is | the same page concept,



Image 7.11.3

84 | [glance at LT] | [gesture (Image 7.11.3)]
 | And of course, the RSO is the | series of concerts played by professional musicians.



Image 7.11.4

85 | [gesture (Image 7.11.4)]
 So, basically, it is | a series of events, that will be shown live and shown in



Image 7.11.5

| place and so on. | [gesture (Image 7.11.5)]



Image 7.11.6

86 | [glance at LT] | [gesture (Image 7.11.6)]



Image 7.11.7

| So, it's not just | creating cool graphics or nice templates, but understanding | [gesture (Image 7.11.7)]
 | the concept



Image 7.11.8

of how the actual | [glance at laptop] | [gesture (Image 7.11.8)]
 | events work, and how people behave during | those events.



Image 7.11.9



Image 7.11.10

87 | [glance at LT] | [gesture (Image 7.11.9)] | [gesture]
 | And I believe that this sort of | thinking will help us to develop | services that
 radically | [glance at LT] | [gesture (Image 7.11.10)]
 | change | how the websites work in the future.

This sequence consists of one photograph. The photograph shows another website that was designed for another broadcasting project. One can note how the photograph is framed from a particular angle and within a particular scene. Once more Janne points out in line (83):

'And here is the same page concept, but totally different lay-outs'
 (LINE 83).

Again, it is the same but different. The narrative weight is on 'totally different lay-outs'. That is, Janne is *storied designing* the 'Event page concept', rather than the websites in question, where narrative weight has shifted to the two websites as representations of an 'Event page concept'. However, the *dramatic development* that is mobilized with the representation of these two websites only makes sense with the 'Event page concept' 'in mind'. In fact, rather than any of the websites, it is the narrative plot that is designated in the 'Event page concept' that effectively allows Janne to segue from one project to another.

7.8 The 'Event page concept' in narrative production

The narrative plot that is designated in the 'Event page concept' holds immediate benefits in providing Janne with a means of storied designing these further representations. Furthermore, in the repetition of 'the same page, but totally different lay-outs' (line 83), the narrative plot seems to be stripped down to its essential parts in addressing simply a design 'that scales, uh, in time-wise and in device-wise' (line 78). This reduction in repetition is further emphasized by the last sequence, where the narrative plot is reduced to the bare essentials: one webpage on one second screen device. The *narrative plot* as designated and objectified in the temporal separation and the separation into three types of devices no longer needs to be repeated. This is what the 'Event page concept'

'does', and *'always will do'*, under varying circumstances in whatever broadcasting conditions, or so Janne suggests and insists.

These two sequences show how the narrative plot that is designated in the 'Event page concept' becomes implicit to the representations and how the representations of these additional websites become organized from the point of view of the 'Event page concept'. This organization is further emphasized by the way the photographs are framed. In terms of angle and scene depicted, the photographs tell one more about the specific devices and the various contexts in which the devices are used rather than the actual webpage that is displayed on them. During the presentation, one might not even register what exactly is taking place on that screen. What counts is that whatever happens on that screen is storied according to the narrative plot that is designated in the 'Event page concept'.

One may even get the impression that a narrative plot must be designated in order to understand what is being represented on stage. The narrative plot as designated in the 'Event page concept' functions as a narrative structure that connects the otherwise random projects as one coherent whole. Indeed, the 'Event page concept' 'makes sense' of the representations as a productive narrative method in the representation of relationships in an object of design that is necessarily storied: 'when using second screen devices in consuming broadcasting'. The *designated narrative plot* allows for a *dramatic development* to be mobilized across the presentational pane, where the *designated narrative plot* becomes implicit to an *object of design* that is essentially storied through it. Indeed, in storied design, what is subject to design is the whole process of storied design itself.

Like the servicescape, one may ponder whether the 'Event page concept' actually exists at all. As far as the 'demonstration' goes, the 'Event page concept' may 'exist' only in so far as what is objectified and *represented* about it. In what becomes represented about it, the separate representations have *narrative weight* only in so far as a narrative plot is given to them. Although the concrete designed websites exist (after all this is what the user finds in the different lay-outs), the 'Event page concept' that becomes grounded in the separate representations can only be understood within a relationship that has been established through a sequence of representations. Indeed, the 'Event page concept' may not be as relevant in a mode of consumption as it is in a mode of production. The 'Event page concept' only makes sense within a process of storied designing as a mode of production.

So, Janne is correct when he says *'it's not just creating cool graphics'*. Janne's point is this: these representations are 'more than meets the eye' because these representations are necessarily 'less than meets the eye'. It is also about the process of objectifying a narrative plot in what *can* be designed about the object of design. The narrative plots designated by Juha and Janne are invaluable in their daily production of design, because they provide a communicative means in the mobilization and reproduction of a storied design. The trick of storied design, then, becomes to understand a storied design, to be in control of the process of storied designing, and to be able to respond by identifying what *can* be designed about an object and what *cannot*.

Both Juha's and Janne's presentation seem to indicate an interrelationship between what *is* storied and designed in the representation (a servicescape; a user interface) of the object of design (an interior design; a website) during the presentation itself, and the process of identifying what can be designed about the object of design (a 'look'; 'a turn slip machine'; a 'kind of a ticker'; 'two tabs') during the process of designing the object that preceded the presentation. It seems that their presentations reflect a method of designing, where the process of storied design had a function within their respective processes of designing the objects of design. Both Juha and Janne, and to some degree the students as well, insist on it with the mobilization of a narrative form. At least it is presented this way. This seems to indicate that *storied design has also been used as a method* in the process of design that preceded the staged presentation. There appears to be a 'coupling' between the *object of design*, as design process, and a *storied design* as the

necessary object of representation, where the representation of it can only proceed via a *process of storied designing*. This relationship between a *storied design* and a *process of storied design* brings the framework of storied design full circle and indicates a specific design skill: that is, knowing how and being able to produce and reproduce a storied design through a process of storied design constitutes a core skill in identifying what *can* be designed in interaction and service design.

Whether this is true is subject to uncertainty. It was not within the scope of this study to include the processes of design that preceded the presentations. The focus was on storied design and how the act of storied designing functions within the design presentation, with a specific interest in interaction and service design. In this regard, it is clear from the student and professional design presentations that the object of design is presented in a cascade of representations that substitute for a demonstration that cannot be achieved because of the nature of the design outcome.

Without knowing the details of the field of architecture, there seems to be a similar dynamic at play within interaction and service design as to what McDonnell and Lloyd (2014) have observed in the design of a building. In this paper, they discuss the process of designing a crematorium and the process of presenting the building through a 'tour'. Although the crematorium in question constitutes a more-or-less finished object during the tour, the nature of the object is such that it needs to be represented in a sequence of highlighted construction features that are then storied in the tour. Concrete features, such as a chapel, a window, and stained glass, seem to become objects of storied design that allow a dramatic development of 'how the building is experienced' to be mobilized through the tour. Narrative weight is given at a scale that does not easily allow for a demonstration other than through an object that is both designed and storied in a representation of the building. What the visitors witness of the building during the tour, however, may well extend beyond what is represented about it.

Below I summarize the framework of storied design (table 7.1) and the comparison between different objects of design (table 7.2).

CONCEPTS	DESCRIPTION	JUHA	JANNE
Staged interplay	To show and explain	- Juha shows servicescape and explains it	- Janne shows user interface and explains it
Object of design	Material constitution of a particular design as final outcome	Entrance to exit via interior design of Fimlab facility	Online broadcast service via second screen devices
Object of storied design	Establishes and explains relationship(s)	- Customer journey to explain sequence of events - Photographs to explain what and how it is like - Prototype to explain relationship with events - Servicescape to explain the object of design	- Eurovision program to explain sequence of events - 'Event page concept' to explain sequence over time and types of second screen devices - User interface to explain the object of design
Interplay of objects in storied design	Establishes relationship(s) to object of storied design as result	- Customer journey, style, prototype, etc. are grounded in servicescape	Eurovision program, sequence over time and devices are grounded in user interface
Kind of object of storied design	Establishes a relationship that develops over time	- Spatial relationship in Fimlab facility	- Interactive relationship in online digital media and/or hypermedia
Dramatic development	A change that occurs over time with regards to the object of design, which is made readily identifiable to a specific audience, may this be in demonstration and/or a story and/or visual representation, as dramatized on stage	- Juha shows when entering current Fimlab and asks 'Is it pleasant?' - Juha's servicescape and the dramatic development in entering Fimlab facility through redesigned interior	- Janne's 'Event page concept' and the dramatic development in 'You have mobile in one hand, beer in the other, television upfront' - Janne's user interface and the dramatic development in using second screen device in online broadcast service
Narrative weight in storied design	Allows grounding of object of storied design in concrete facts and artefacts	- Narrative weight is given to sequence of events in customer journey; turn slip machine in prototype; spatial separation in map; representation of interior design in servicescape	Narrative weight is given to separation of events and devices in 'Event page concept'; 'a kind of ticket', 'two tabs' and 'twitter feeds' in user interface
Designated narrative plot	Specific narrative of relationship(s) that identifies 1) the kind of object, 2) the scale of narrative weight that is given and 3) allows for a dramatic development to be mobilized across presentational pane	- 'When entering a Fimlab facility' is mobilized repeatedly	- 'When using second screen device in online broadcast service' is mobilized repeatedly
The process of objectification	Process where (1) a narrative plot is being designated to (2) a kind of object that is increasingly given form and allows for (3) a dramatic development to be mobilized through (4) an interplay of objects, where (5) a narrative weight becomes grounded in (6) an object of design that is both storied and designed: a storied design	Juha's customer journey, followed by photographs of current Fimlab, then prototype, then map and representation of interior design in servicescape	Janne's 'Event page concept', followed by user interface and concrete digital means, then representations of user interface of other realized projects
The process of identifying what can be designed	Sequence of objects of storied design, where narrative weight shifts and identifies what can be designed about object of design and what cannot	- Juha's prototype that identifies what can be designed about Fimlab service, such as the waiting turn slip machine - Juha's servicescape that identifies what can be designed about Fimlab interior, such as instructions on wall, chair in laboratory, etc.	Janne's 'Event page concept' that identifies what can and cannot be designed about online broadcast services - Janne's user interface that identifies what can be designed, such as 'a kind of ticker', 'two tabs', 'live content', 'Twitter feeds'
What can be designed in the storied designing?	- Sequence of objects of storied design - Framing in the object of storied design - Staged choreography of object of storied design	- Sequence of customer journey, then observation of current Fimlab - Photographs are framed in keyholes - Representation of interior design is framed from the point of view of a servicescape	- Sequence of 'Event page concept', then user interface - Photographs of websites of other realized projects are framed - Representation of website is framed from the point of view of a user interface that is based on 'Event page concept'

Table 7.1: Framework of storied design with category of the process of identifying what can be designed

	PITCHMAN	TEAM 2	TEAM 5	JUHA	JANNE
Object of design	Super Chamois	Inpatient outpatient transfer via transfer ticket	Inpatient outpatient rehabilitation via cooking premise	Entrance to exit via interior design of Fimlab facility	Online broadcast service via second screen devices
Object of storied design	Super Chamois	Transfer ticket	Branded cooking premise	Servicescape	User interface
Designated narrative plot	Absorption, retention, release	When exchanging a transfer ticket helps in rehabilitation	When cooking and casual talking helps in rehabilitation	When entering a Fimlab facility	When using second screen device in online broadcast service
Kind of object	Relationship contained in discrete object	Relationship contained in transfer process	Relationship contained in rehabilitation process	Relationship contained in a Fimlab facility	Relationship contained in digital interactivity and hypermedia
Narrative weight	Material property of Super Chamois	Logistical facts and artefacts: ticket, date/ time, map, bus schedule, etc.	Catering-specific facts and artefacts: premise, kitchen table, sandwich, sofa, opening times, entrance fees, etc.	Fimlab-specific facts and artefacts: A specific 'look', waiting turn slip machine, instructions on wall, chair in laboratory	Digital/ hypermedia related facts and artefacts: 'A kind of ticker', 'two tabs', 'live content', 'Twitter feeds', and other realized projects
Dramatic development	Demonstrated	Represented	Represented	Represented	Represented

Table 7.2: Comparison of different objects of design



8 Conclusion

The fields of interaction and service design have been shown to create objects that deal with systems and environments or platform-level solutions (Buchanan 2001b; Morelli 2003; Morelli 2007; Löwgren & Stolterman 2004; Keinonen 2009b). Such objects of design tend to be ‘heterogeneous’ (Secomandi & Snelders 2011), ‘distributed’ (Artman & Waern 1999) and subject to ‘dynamic circumstances’ (Arvola & Artman 2007; Stolterman 2008; Myers et al. 2008; Ozenc et al. 2010). Due to these conditions, the presentation of an interaction or service design is different from a discrete product design presentation because the means of presenting the object of design are necessarily different.

The kind of object of concern in interaction and service design cannot be demonstrated, only represented, and its representation encompasses more than the immediate bounds of either words (Fleming 1998; Lloyd & Deasley 1998; Stumpf & McDonnell 2002; Dong 2007; Oak 2012; Oak 2013) or visuals (Goldschmidt 1991; Schön & Wiggins 1992; Purcell & Gero 1998; Alistair McGown 1998; Kavaklia et al. 1998; Cross 1999) to an extent that is constituted in both properties as interplaying ‘languages of design’ (Tomes et al. 1998; Bucciarelli 2002; Glock 2003) that are directed by a narrative form that is both *storied* and *designed*. Within this context, I propose the theoretical framework of storied design to show and explain how narrative *matters* in interaction and service design presentations.

At present, research has addressed the relevance of storytelling and narrative as wider communicative practices within design teams and design processes (Fleming 1998; Lloyd & Deasley 1998; Lloyd 2000; Stumpf & McDonnell 2002; McDonnell 2009; Glock 2009; Oak 2012; Oak 2013). The framework of storied design captures the shifting conditions in interaction and service design presentations specifically, where a disposition needs to be developed through a *process of storied designing* that pertains to both a *concrete design* and its *storied* counterpart in order to represent the object of design in the design presentation – its result being a *storied design*.

The main contribution of this thesis lies in the outlining of this framework. This framework, at once reveals the problem of *storied design* and the skill that is required to deal with it. In a sense I argue that, within the profession of design, a *storied design* and *the act of storied designing* have always been present. For that matter, design presentations always involve the telling of a story in some form; for what is storied, there must always be a form of design present. However, different forms of design exist and as I have demonstrated, a different form of design results in a different kind of storied designing.

8.1 Summarizing the key concepts grounded in empirical analysis

To summarize the theorizing process presented in the empirical chapters I recapitulate the concepts below. Readers who remember the key concepts and empirical material well can move to section 8.2. I have looked at a number of design presentations, selected according to a theoretical interest in regards to *storied design*. I have analysed this particular conduct using video materials and grounded it in the observable staged interactions in which this particular conduct takes place with regards to a design. The main purpose is to understand the *process of storied designing* within design presentations – that is, to determine the organization of how a design is *storied*, and a story *designed*, into a *storied design*.

I used student presentations of service design to develop an initial basic framework of *storied design*. I established the scope of the framework as being limited to *the staged interplay*, through which I analyzed the process of showing and telling about a particular object of design. I then identified *the object of storied design* in establishing a particular relationship with regards to the object of design. I then theorized on *the kind of object* that is subject to a development over time and argue that some form of *storied designing*

is necessary in representing such an object. I then showed how the process of storied designing pertains to an *interplay of objects* that results in an object of design that is both storied and designed: both *dramatized* as a development over time and *grounded* in a concrete object. Through the development of an initial framework, I delimited the theoretical process along three lines of inquiry: 1) the nature of what is *storied* and *designed* as capturing a relationship that develops over time with regards to the object of design, 2) how a sequence of *representations* of the object of design, rather than the actual object of design, are mobilized in support of accounting for it and 3) how the scope of what is storied about the object of design indicates what *can* be designed about it, where only the physical aspects that have a bearing on what is storied are truly subject to design. These three lines of inquiry provided further scope and focus for the empirical chapters that follow.

I then used this framework to analyze the demonstration of the Super Chamois, a discrete product. The obvious concreteness of the object of design provided a counterweight to the service designs presented in the student presentations and allowed me to show how an object this concrete is also subject to storied designing within the demonstration. It allowed me to focus on the *staged interplay* that takes place between the physical properties of the object and the relationship that is *storied* with regards to the object of design within the demonstration. It shows the *kind of object* in storied design, where the *dramatic development* is clearly demonstrated in the *relationship of physical properties* and the *narrative weight* is clearly given to and grounded in those physical properties as arranged within a *designated narrative plot* about what these physical properties do, consistently and always over time. The repetition of a designated narrative plot shows the object as inherently storied within the demonstration, as much as it shows how the designation of a narrative plot allows for a *dramatic development* to be *mobilized and repeated* across the demonstrational pane, where the presentational pane is defined as the total sequence of what is shown and told during the presentation.

In a comparison with the student presentations, I theoretically consolidated the following concepts of storied design in the observation of this designated narrative plot, where its consolidation allowed me to ground the object of design in a service design presentation. I showed that the *designated* narrative plot identifies 1) *the kind of object of storied design* in a service design presentation, where 2) *the narrative weight* cannot be grounded in the demonstration, but is clearly given to and grounded in representations that scale beyond what can be presented. *In the context of a presentation, a service design is different from a discrete product because the object of design in service design may not allow for a demonstration in the first place.* In addition, the designation of a narrative plot is particularly critical, because it captures a specific relationship that develops over time that allows for 3) *a dramatic development* to be mobilized across the presentational pane in representing what the design *does*. That is, the object does not 'speak for itself' but is given meaning through a narrative plot that needs to be designated. The designation of such plot and the meaning that follows is key to constituting *how* the object is to be understood by an audience. Yet, such narrative plot can be various and may not necessarily be determined by the object, although it may be conditioned by the object.

I then used the updated framework to analyze a presentation that concerns the design of a servicescape, where I showed *how* the object of design is represented, rather than demonstrated in service design presentation. I showed how a *narrative plot* needs to be designated and, unlike with the Super Chamois, given a form in the first place, in order to allow a *dramatic development* to be mobilized and represented across the presentational pane. I showed how the designation of a narrative plot pertains to a *process of objectification*, where the *narrative weight* shifts unidirectionally and becomes gradually and increasingly grounded within and through a sequence of concrete methods of representation as *objects of storied design*. That is, *in a service design presentation, it is the total sum of objects of what becomes represented about the object of design as a result of particular methods of representation that is mobilized across the presentational pane.* I theoretically consolidated the following concepts

of storied design in the observation of this process, where its consolidation allowed me to further ground the object of design in a service design presentation. I showed that in this *process of objectification* (1) a *narrative plot* is being designated to (2) a *kind of object* that is increasingly given form and allows for (3) a *dramatic development* to be mobilized through (4) an *interplay of objects*, where (5) a *narrative weight* becomes grounded in (6) an *object of design* that is both storied and designed: a storied design. That is, *the servicescape is itself a storied design*.

Whereas the presentation of a servicescape allowed me to analyze the kind of object that scales across a physical space, I then compared this with the presentation of an online broadcasting service, where the *kind of object*, its *narrative weight* and the *narrative plot* that becomes designated scale across a digital space. I showed that under such conditions, a *process of objectification* can also be identified in designating a *narrative plot* that allows a *dramatic development* to be mobilized across the presentational pane, where the *object of design* is both storied and designed in a *storied design* of a user interface. I further consolidated the function of a storied design (e.g. a servicescape; a user interface) in design presentation as a necessary method in representing objects of design (e.g. an interior; a website) that may be difficult to present otherwise.

In comparison with Juha's presentation and the two student presentations, I further explored how the shifting *narrative weight* in the *process of storied design* provides a method for identifying what *can* be designed about the *object of design*. There appears to be a 'coupling' between the *object of design*, as design process, and a *storied design* as the necessary object of representation, where the method of storied designing stands at the intersection between the *object of design* and a *storied design* as the necessary object in representing what *can* and *cannot* be designed about the object of design in interaction and service design. This relationship between a *storied design* and a *process of storied designing* brings the framework of storied design full circle in establishing the *method of storied design* as a process of design where the *object of design* is, in fact, a *storied design*, and the process of designing it can be understood as a *process of storied designing*.

8.2 Storied design as representation in interaction and service design presentation

As far as storied design is concerned, the problem of designing is not about designing something, but rather about presenting something. The constraints imposed by the need to convince people, are such that this can be achieved only if the design is transformed into an object that is easily moved, presentable and understandable. In product design, this is typically the product. However, in interaction and service design, this seems to consist of a *storied design* as a representation of an *object of design*.

I showed that, in the fields of interaction and service design – where the form of the design outcome differs significantly from conventional product design – the design cannot be presented in the same way. The object of design in interaction and service design typically cannot be presented in full in the context of the presentation. Such objects typically do not allow for demonstration in the way a concrete product would. Presenters, such as Juha and Janne, need to represent their objects of design through the invention of many contrivances in the form of objects of storied design. One never really gets to see the actual object of design, only a cascade of objects of storied design – customer journeys, statistics, personal experiences, a particular style, diagrams, prototypes, maps, etc. Unlike the actual object of design, these are the representations that do allow some form to be mobilized into the context of presentation. Yet, these forms in themselves typically do not provide any explanation, but on the contrary are the things to be explained in a process of storied design during the presentation.

	PITCHMAN	TEAM 2	TEAM 5	JUHA	JANNE
Object of design	Super Chamois	Inpatient outpatient transfer via transfer ticket	Inpatient outpatient rehabilitation via cooking premise	Entrance to exit via interior design of Fimlab facility	Online broadcast service via second screen devices
Object of storied design	Super Chamois	Transfer ticket	Branded cooking premise	Servicescape	User interface
Designated narrative plot	Absorption, retention, release	When exchanging a transfer ticket helps in rehabilitation	When cooking and casual talking helps in rehabilitation	When entering a Fimlab facility	When using second screen device in online broadcast service
Kind of object	Relationship contained in discrete object	Relationship contained in transfer process	Relationship contained in rehabilitation process	Relationship contained in a Fimlab facility	Relationship contained in digital interactivity and hypermedia
Narrative weight	Material property of Super Chamois	Logistical facts and artefacts: ticket, date/time, map, bus schedule, etc.	Catering-specific facts and artefacts: premise, kitchen table, sandwich, sofa, opening times, entrance fees, etc.	Fimlab-specific facts and artefacts: A specific 'look', waiting turn slip machine, instructions on wall, chair in laboratory	Digital/hypermedia related facts and artefacts: 'A kind of ticker', 'two tabs', 'live content', 'Twitter feeds', and other realized projects
Dramatic development	Demonstrated	Represented	Represented	Represented	Represented

Figure 8.1: Comparison of the objects of design

For instance, the Super Chamois allows for a *dramatic development* to be clearly demonstrated: the *narrative weight* is grounded in the *object of design* itself. In the presentation of the interior design of a Fimlab facility and the online broadcast service design, the *dramatic development* can only be represented and needs to be given form in the first place. The *narrative plot* is designated at a scale where the *narrative weight* is grounded in an object that needs to be storied in one way or another. This is the fundamental problem that differentiates the presentation of the service and interaction designs studied here from that of the Super Chamois. Whereas the Super Chamois *does* part of the explaining in the demonstration, a servicescape, a user interface, a cooking premise or a transfer ticket, requires explicit explaining through a narrative plot that needs to be designated and given a form in the first place. The narrative plot that is designated, in turn, helps both designer and audience to make sense of the relationships that develop over time with regards to the object of design, which typically cannot be explained otherwise. In this respect, the method of storied design provides an outcome and fulfils this need.

Representations such as a servicescape or a user interface are thus storied and designed to represent an object of design that typically extends further than what becomes represented within the presentation. Although the actual interior design or the actual website exist, a servicescape or a user interface can be best understood on a conceptual level, and may not exist in so far as narrative weight is given to what is represented about them or, indeed, *what becomes storied and designed with them*. That is, the designation of a narrative plot is crucial to such objects of design, as this allows a specific relationship as a development over time with regards to the object of design to be mobilized across the presentational pane.

In some cases, as in Janne's inclusion of 'a live twitter feed', the designation of such

narrative plot seems the only way to represent and explain what the component does or how the component behaves (Rosenman & Gero 1998). Perhaps 'a live twitter feed' (or even Juha's 'turn slip machine' for that matter) is exemplar in constituting an interactive component where 'the form of a technical artefact reflects not only the work of the designer but also, increasingly, the actions of the user' (Redström 2008, p. 410), or in this case 'users', since without users' collective actions on the component, there would be no 'feed' to speak of. Here, one can clearly note how some form of a 'scenario of use' (e.g. Cockburn 2000; Brandt & Grunnet 2000; Newell et al 2006; Iacucci et al. 2002; Kuutti et al. 2002; Oulasvirta et al. 2003; Redström 2006, 2008) is needed to explain how the component works in the first place.

In an attempt to define use, Redström has suggested a conceptual distinction between 'thing design' and 'use design' (Redström 2008, p. 412), where the first addresses the act of 'defining use through design' and the latter the act of 'defining use through use' - for example, when a person defines what a given thing is by using it in a certain way (Redström 2008, p. 413). There is a difference between anticipated use and actual use. As far as storied design is concerned, it is not as much that one might be able to distinguish such concepts in designing (or using for that matter), as it is paramount to understand that the problem of defining use, any use, is in showing and explaining what the design is or can be used for. In this respect, the construction of scenarios of use become critical in representing the object of design and are specifically produced with the context of a presentation in mind, where the scenarios of use are clearly both storied and designed. The skilful storied designing of a scenario of use is an achievement in its own right.

Although it is probably good to keep in mind that the storied designing of a scenarios of use is meant to be suggestive to a particular use rather than determined to a particular use, such acts of storied designing indicate what designers such as Juha and Janne *know* about the object of design. Such acts indicate to what extent they can see *how* such components, such as a 'live twitter feed' or a 'turn slip machine', can be designated within different narrative plots in relation to other components, and how different narrative plots result in different outcomes in the use of these components (Redström 2006).

Depending on what is designated as narrative plot, different relationships may be mobilized. Such objects of storied design can also be understood to be scenographic. They represent the object of design in perspective, where the representation provides perspective. For instance, 'the process when transferring from inpatient to outpatient' becomes storied and designed in as much as it becomes perceived through representations of 'a ticket' or 'cooking premises'; 'the interior design when entering a Fimlab facility' becomes storied and designed in and becomes perceived through 'a servicescape'; and 'the second screen device when consuming broadcasting' becomes storied and designed in and becomes perceived through 'a user interface of a website'. Such objects help both designer and audience to make sense of the kind of object that essentially develops over time and typically cannot be explained otherwise.

So, as far as storied design is concerned, the problem may not be so much that the kind of object of concern is 'heterogeneous' (Secomandi & Snelders 2011; Kaptelinin & Bannon 2011), 'distributed' (Artman & Waern 1999) and/or subject to 'dynamic circumstances' (Arvola & Artman 2007; Stolterman 2008; Myers et al. 2008; Ozenc et al. 2010), or even 'wicked' and 'complex' (although each of these categories may be a major contributing factor to the problem), but that the kind of object cannot be seen to develop over time, apart from the methods of representation one fabricates about them. The relationships that are drawn together and mobilized in methods of representation, such as of Team 2's transfer ticket, Team 5's cooking premises, Juha's servicescape, and Janne's user interface, are the only objects one sees about the object of design. In this respect what is storied and designed in the representation may become the most significant form, and in some cases the only significant form one sees of the object of design as a 'reality' during a design presentation.

What this means is that the method of representation itself, as an object of storied design, plays a defining factor in how the object of design is perceived to be designed and in showing what *can* be designed about it. And as this study shows, the method of representation is subject to design and it is important to understand that this is so. That is, the whole sequence of interplaying objects of storied design, how the narrative weight shifts and how the kind of object is drawn together through a range of methods is an important aspect of the object of design, since it is through that process that one comes to ‘see’ it during a design presentation. The result of a storied design shows at least three aspects that are subject to design:

- 1) The object of design is carefully represented in an object of storied design that typically leaves most of the object of design either out or in the background. For instance:
 - The object of design is framed such to provide a particular perspective on the object that allows a specific narrative plot to be rehearsed
 - The object of design is simplified to emphasize a particular sequence in a specific narrative plot

- 2) The object of design is carefully represented in a sequence of objects of storied design that draws it together within a superimposed whole. This sequence is not arbitrary and allows for an evaluation of the consistency and coherence of what is storied and designed. For instance:
 - Objects of storied design are placed in sequence to repeat a narrative plot
 - Objects of storied design are placed such that the sequence pertains to an increasing degree of the tangible aspects of what *can* be designed about the object of design

- 3) The objects of storied design rely on further indication and reference to indicate narrative relevance with regards to specific aspects of the object of design while ignoring others. For instance:
 - Aspects with regards to the narrative plot are highlighted with additional lines, arrows, colours, etc.
 - Aspects with regards to the narrative plot are emphasized with enlargements
 - Aspects with regards to the narrative plot are referenced to with deictic nouns and finger pointing

This results in an overall representation of a storied design that provides a coherent whole in what is storied and designed about it. How this is achieved shows a certain quality that may specify what counts as a ‘good’ practice in storied design. It is important to note that ‘goodness’ in a storied design cannot account for whether the totality of the design is good or not.

It is not suggested that the representations that are storied and designed in this way, such as the servicescape or the user interface, are purely fictional. Nor should one consider them as equal to *the* real-world design of an interior of a Fimlab facility or a website that is running on one’s second screen device when watching Eurovision live. Rather, the storied designing of an object is Juha’s and Janne’s way of representing the object in what can be seen and storied about it, which is an achievement in its own right.

It is important to further note that such storied designs are not the end of what can be storied about the object of design in totality. A storied design can always be revisited in the actual design, upon which visit other stories may be formed, narrative weight alternatively scaled, and a dramatic development differently represented. In interaction and service design presentations, *the* design does not function in the way one might assume. It does not explain itself as useful. On the contrary, it requires extensive explanation, with the explanation itself being carefully storied and designed in a cascade of representations.

To demonstrate the Super Chamois requires a degree of knowledge about the Super Chamois as an object to begin with. The pitchman must understand what can be storied about the Super Chamois (absorption, retention, release) and *how* (such as with the use of water or a glass bowl). Understanding this narrative form is essential for organizing the ways the object can be mobilized to demonstrate a dramatic development, where this development is partly grounded in the object of design itself and partly designated in a narrative plot about what the Super Chamois *does*.

With regards to Juha and Janne, one can note a slightly different development. The explanation of a servicescape or a user interface of a website seems to attest to a degree of knowledge in what is both storied and designed about them, where this knowledge becomes partly grounded in objects and partly designated in a specific narrative plot. However, it is obvious that in the context of the presentation of an interaction or service design, this knowledge is grounded in a representation of the object of design rather than the actual object of design itself. A storied design is significant in representing the object of design as it shows a reality Juha and Janne *can see and know about* with regards to what *can* be designed about the object of design. The result of a storied design pertains to a particular 'knowing' that is both storied and designed, to which the presenters respond 'knowingly' in 'knowing how' to produce it and when necessary reproduce it. Representations such as a servicescape or a user interface serve as carriers for this kind of design knowledge that can be repeatedly called upon within the process of design. I suggest that the skill required to do so – producing it and reproducing it – is part of professional design competence.

The result of a storied design, then, gives a means to account for what it is that designers know in terms of what they are able to mobilize through it. A storied design pertains to a degree of instruction that can be repeatedly acted upon in directing the design process. Although both Juha and Janne allude to a degree of reproducibility of their respective designs, in reality this may not be as straightforward as in the case of the Super Chamois. As a product, the Super Chamois can be industrially mass-produced and, rest assured, the end result can be repeatedly demonstrated. Juha cannot deploy the same design across all Fimlab facilities in Finland and expect it to perform the same way – contextual variation will see to it. What Juha can present, however, is a strategy of design that has proven to yield positive results thus far and could potentially provide a viable and repeatable strategy for wider deployment of the design. That is, in what is storied and designed in the servicescape provides a strategy that can guide the reproduction of the design in other facilities by showing what *can* be designed about them. In fact, in part, this seems to be the running message in his presentation.

Something similar, but slightly different, can be noted in Janne's product. Janne cannot copy paste the software and port it directly into any given broadcast programme due to contextual variation. As he points out himself, different broadcast programmes attract different audiences and are scheduled at different times. What Janne can present, however, is an 'Event page concept' (and its associated components such as tabs, counters, widgets, etc.) as a viable and repeatable strategy in the design of user interfaces by showing what *can* be designed about them to accommodate the idiosyncrasies inherent to broadcast programmes. The identification of what can be designed in this way could be understood as some form of framing (Schön 1983; Glock 2003; Liao & Person 2015), where at various stages in the process of design, the object of storied design can provide a way of seeing the task that then sets an agenda for subsequent design by showing what *can* be designed about the object of design.

Although the practical value of a storied design is first and foremost reflected in its seamless delivery and reproduction at the moment when a presentation is given, in what becomes storied and designed in a storied design, the identification of what *can* be designed also seems to hold strategic value in the repeatability of a storied design as a kind of 'guiding principle' (Lawson 1990) in the form of a 'schemata' (Lawson 2004)

that results from project-to-project experience. For designers such as Juha and Janne, it seems that the knowledge of what can be designed about their respective objects of design is now partly grounded and partly storied in a servicescape or a user interface, which allows them to reproduce and re-evaluate them in following projects. Like any good story, the ultimate measure of its 'goodness' is the degree it gets adopted, appreciated and hence repeated. That makes it a good storied design.

8.4 *Storied designing as a basic communicative process*

Imagine if designers, such as Juha and Janne were asked to present their designs without a form of storied design. Would that be possible? I believe not. In fact, I believe that the kind of object of concern in interaction and service design presentations necessitates a form of storied design. In that respect, storied design could be understood as a basic communicative process that is uniquely employed in this area of the designing, but is perhaps not necessarily unique within the design profession at large.

As this thesis shows, this process of storied design is not simply illustrating a design. It is meant to impart particular information about a design, as much as it is meant to be dramatic. It is not pure information, but a portrayal of a narrative plot and the continual shift in narrative weight that allows for a dramatic development to be mobilized across the presentational plane. In this, the process of storied design invites participation, where the result of a storied design only makes sense to the extent an audience is able to assume a role within it (Carey 1989). In this regard, the function of drama in design presentation seems to be more than merely establishing empathic response to stories within design (Parrish 2006; Spaulding & Faste 2013) or the construction of a story arc, climax and emotional effect (Zomerdijk 2010). Drama seems necessary, if the object of design is to be understood and identified with in general (Burke 1969).

Within service and interaction design presentation, the results of design methods are instrumental *in* bringing about this dramatic shift in communication. Design methods seem to provide the needed narrative means in the deconstruction of an object of design into objects of storied design (i.e. customer journeys, style forms, prototypes, maps, diagrams, etc.) and the reconstruction of these objects into a result that is both storied and designed (i.e. servicescape or user interface), which allows a dramatic development to be mobilized about the object of design. In the face of an audience, audience expectations of these very design methods seem critical in allowing designers to utilize such means in communication of the design in the first place. In this respect, the process of storied designing seems to provide the needed outcome in guiding audience expectations in how to understand the result of a particular design method, such as a customer journey or a prototype. That is, the process of storied design emphasizes that aspect of the design method that is conceived *in* communication and at the interface (Secomandi 2012) with a specific audience.

There is reason to think that a number of methods that have been labelled as methods for service design can be interpreted as effort that aids various forms of storied designing in communicating the object of design. For instance, for the purpose of exploring design opportunities that will enhance hotel stays, Lo (2011) describes a method for understanding hotel room experiences. This method combines photo elicitation based on the photos taken by the subject hotel guests themselves and in-depth interviewing. In 'designing service evidence for positive relational messages', the method allowed her to deconstruct the hotel room into *objects of storied design* (subject hotel guests' narrated accounts on the photographs they made of 'welcome fruit', 'a desk', 'an umbrella', 'clothing hangers', 'a tissue box', etc.) and the reconstruction of these objects into a result that is both storied and designed (a hotel room servicescape). The resulting *storied design*, in turn, allows a dramatic development to be mobilized and communicated about the hotel room (i.e. 'customer care', 'consideration' and 'trust') to hotel management.

Similarly, for the purpose of service innovation through touch-points, Clatworthy

(2011) describes a method for new service development within the field of telecom and public health services. This method consists of cards depicting touch-points that are used during participatory workshops within an organization. In 'new service development', this method allowed workshop participants to collaboratively deconstruct the service into *objects of storied design* (i.e. participants' narrated accounts on a specific card, a grouping of cards or a specific constellation of cards consisting of 'newspaper', 'contract', 'sms', 'logo', etc.) and the reconstruction of these objects into *a storied design* (i.e. 'an existing situation', 'service pain points', 'a particular service back-stage organization', etc.). This method seemed to target the object of storied design specifically as in drawing together relationships between touch points. The resulting storied design allowed a dramatic development to be mobilized and communicated about service provision (i.e. 'back-stage organization change', 'systemic innovation as in changing the whole service system', 'innovation of individual touch-points', 'brand strategy alignment', etc.) to its respective stakeholders.

In another example, for the purpose of designing healthcare servicescapes, Lee (2011) describes the method of servicescaping, as inspired by Bitner's (1992) concept of the servicescape. This method pertained to the development of a possible patient's journey that covered photographs of the interior of the facility, but also included further sensorial aspects such as temperature, lighting and sound. This collection was then used in structured interviews with visitors of the facility. In the development of 'healthcare serviceability', this method allowed him to deconstruct the interior of the facility into *objects of storied design* (visitors' narrated accounts on various aspects on this interior, such as 'an emergency door', 'a TV', 'resources to read', 'an open cabinet for medical supplies', 'fluorescent lights', etc.) and the reconstruction of these objects into a result that is both storied and designed (a healthcare servicescape). The resulting *storied design*, in turn, allows a dramatic development to be mobilized and communicated about the facility (i.e. 'difficulty in way-finding', 'noise', 'dull-ness', 'feeling of intimidation', 'feeling of institution', etc.). This brief illustration of reported studies on specific methods employed in the design of services shows that a process of storied designing may be occurring as a basic communicative process during the process of designing services.

8.5 *Design methods and the imminent crisis of abstraction*

'Are designers still involved in the shaping of material goods?' (Redström 2006; Secomandi & Snelders 2011; Kaptelinin & Bannon 2011). I would like to think that this is very much the case. One only needs to take distance from the presentations and *see* that it does.

However, what does seem to happen is that some of the methods that are included in the design of services result in representations that look more abstract – for instance, Juha's customer journey and Janne's 'Event page concept'. The kind of object that is of concern in an interaction or service design seems to have forced designers to take distance, rather than to get closer to the object of design (Morelli 2007; Keinonen 2009a; Bjögvinsson et al. 2012; Bødker 2000; Newman & Landay 2000).

In essence, although interaction and service design are not designs of concrete objects in specific (i.e. a servicescape, a user interface), some may perceive these forms of design through the concrete object. This is natural enough since the concrete object has been design's principal concern, and the material property has always been design's 'talking' partner. Once the methods of interaction and service design have been established, it becomes obvious that the more natural development of this new form of design, and the new 'language' of design, lay in treating objects of design that stretch beyond the concrete object and have to be observed from a distance, rather than up close (Keinonen 2009b).

To represent an overview of an interaction or service design from a distance clearly presents fewer problems to the designer than a representation that attempts to capture

all the possible objects that are involved in it up close. An interaction or service design does not lend itself to such a presentation or such a form of communication. Even when we do find objects in the presentation, they are typically designated within a particular narrative plot, not outside of it, although the objects themselves, in turn, do lend themselves to continuous designation of various and different narrative plots.

Therefore, the object of interaction and service design seems to pertain to the concrete object, as much as it extends beyond it to a narrative form. Yet, this narrative form needs to be identified first, and the identification remains open to negotiation rather than closed. The object of interaction and service design is, in effect, open and indefinable, but yet remains conditioned by what can be designed about it. Paradoxically, within storied design, this is the one instability that provides stability. The need to come to terms with what the representation stands for preserves the authority of their designers' unique ability to interpret an object of design, where the interpretation is indefinable in terms of words alone or a single specified line of logic, but requires both a story and a design to introduce it to an audience – a storied design.

In this regard, it becomes obvious that the format of the PowerPoint presentation itself holds a preference for the visual. The fact that all one can do is limited to 2D representation could also be responsible for the abstract 'look' of design results. Although the limitation to 2D representation may make a number of methods of design look abstract, I hope to have shown that the exact opposite is the case, where narrative weight becomes grounded in concrete facts and artefacts. The allusion to a conceptual ground may shroud the need for sensitivity for a built environment and the human experiences of that environment. The absence of a concrete design may at worst block the designer's ability to interpret those experiences through a built environment. Sensitivity for the built environment is intended to accommodate the persistent thematic preoccupation and interest of design in the everyday experience of those environments, rather than some abstraction of a good idea that is decoupled from it. Ultimately, the narrative plots in Team 2's transfer ticket, Team 5's cooking premises, Juha's servicescape, and Janne's user interface lead back to facts and artefacts of the built environment. In this regard, the methods that we develop seek to bring us closer to the object (in terms of spatial arrangements, instruction panels, waiting-turn slip machines, types of second screen devices, tabs and counters, live feeds, etc.), concretely, not further away from it. If design is to continue as a profession, it is in this era of interaction and service design that designers need to stand by their profession, perhaps now more than ever.

8.6 Limitations and further research

In the study of design presentations, this research combined a grounded theory approach with video analysis. Twelve video recordings of design presentations were analyzed, from which five presentations were selected to simultaneously present the framework of storied design and the intricate process of grounded theorizing. Through a process of sampling and comparison based on inductive reasoning, further inductive-deductive sampling and theoretical indication, scope and focus were iteratively introduced in the organization of the observations made in the analysis of these video recordings of design presentations.

On the outset, it is important to note that the grounded theory approach is not limited to a specific field, discipline or any type of data (Glaser 1992). However, as this thesis has shown, a specific field, discipline or any type of data does affect how the grounded approach is carried out (Nilsson 2011; Schubert 2012). In regards to scope, the combination of a grounded theory approach with video analysis, resulted in a kind of 'focused grounded theory', where the type of data dominated the process of grounded theorizing. That is, the nature of the medium itself affected the basic processes of grounded theorizing considerably by limiting it to the video recordings (Konecki 2011; Nilsson 2011). Furthermore, the approach stipulates a minimal interference of prior theory to maximize the inductive

process of the approach (Glaser & Strauss 1967; Glaser 1978). But as I argued in chapter 3, this is not likely to be the case when analyzing video, since considerable insight into the field is needed to make sense of what is going on in the videos in the first place (Schubert 2012). In practice, theories can play a large role in the grounded theory process, and can enhance theoretical sensitivity to the field, if such predispositions are accounted for throughout the process. These two aspects of the type of data and how to make sense of that data, make the grounded theory approach a highly reflexive process, where the empirical scope and the analytical focus, including one's own disposition, are constantly monitored and managed (Glaser 1978).

The process of grounded theorizing allowed me to become deeply immersed with the video recordings of design presentations. This immersion was matched by the combination with video analysis, which 'doubled' the immersive experience, as each presentation was scrutinized in detail (Knoblauch et al. 2009; Heath et al. 2010; Schubert 2012). Practically, this immersion translated in the iterative and integrative processes of sampling, constant comparison, coding and memoing with regards to the analysis of these presentations. This immersive process has its downside. It can be exhaustive. The process of coding can be time consuming and tiring. Combined with video analysis, which requires handling of video recordings; constructing detailed descriptions of the video recordings; adoption of multiple perspectives on the video recordings, this can become a particularly laborious process. Furthermore, the process of abstracting, theorizing and penetrating the concepts to the core category of storied design was not an easy task and could not be 'hurried', as it took a considerable amount of time to fine tune the framework around the core category.

As the grounded theory approach prescribes a predominantly inductive process to generating hypotheses, concepts and theories from the empirical material (Glaser 1978) the approach allows for a degree of creativity in the process. In that sense, the approach encouraged a process of discovery where the hypotheses and concepts emerged as I was making sense of the design presentations. This degree of creativity can have its downside. There is a thin line between just sampling and theoretical sampling (Flick 2009), where the 'process of data collection is controlled by the emergent theory' (Glaser 1978, p. 36). To resolve this requires a tight description of the process of sampling and comparison, where both need to be explicated with regards to the emerging theory. Again, the combination with video analysis results in more description, since emergent theoretical indications from the video recordings have to be described first (Schubert 2012). In addition, in combination with video analysis, this emerging theory can prove to be difficult to present and requires further creativity in representing the resulting theory concisely, but without losing eye on the process from which the theory emerged in the first place.

The grounded theory approach provided me with a systematic approach to iteratively establishing empirical scope and analytical focus in the analysis of the video recordings. Methodological description that explicates this dual conception of empirical scope and analytical focus is paramount here in accounting for the emerging theory and the process from which it emerged. The integration of these aspects is critical in evaluating the resulting product, where the resulting product of a grounded theory approach is necessarily both a grounded theory and a grounded theorizing (Glaser & Strauss 1967, p. 224). In this regard, there is one more aspect that requires attention here. The approach of grounded theory itself remains a contested field that is in continuous development (Annells 1997). The different approaches to grounded theory can be disorienting and the application of grounded theory is wide. Yet, a basic understanding of its historical precedents is important if one wants to understand the approach and be able to place one's own work in relation to the different available paradigms and their epistemic and ontological principles. Understanding the approach of grounded theory in this way, allows one to reflect on one's own process of grounded theorizing, where one can 'follow the eclectic way and pick those concepts and procedures from each of the approaches, which look most instructive for [one's] research' (Flick 2009, p.435), rather than becoming

'trapped' in a rigid structure, which the approach is sometimes 'accused' of (i.e. Charmaz 2006, p.334).

Any theory is insufficient by its own means. As this thesis has demonstrated, the development of a theory of storied design consisted of an empirically grounded analysis process. This theory of storied design can undoubtedly be developed further as a process. There is always room for one more sample, one more comparison, one more perspective, and one more theoretical memo, allowing for further modification of the theory. However, at this point, 'having discovered, through principally inductive effort, a substantive theory about delimited arrays of data' (Glaser & Strauss 1967, p. 226), the core category of storied design is sufficiently saturated within the scope and focus of this study, and the process can come to a close, for now, to be published in this 'slice of reality' form (Glaser 1978, p. 129).

Although the theory is grounded, it is not proven, but suggested. As such, the theory stands on an integrated set of hypotheses based on findings, not the findings themselves (Glaser 1978, p. 134). Whether the theory of storied design really appeals to a basic communicative process that is unique to the designing profession is beyond my control and something for the reader to decide. In this regard the core category of storied design simply needs to 'fit' the practice and have 'grab' with the practitioner – that is, it 'works' for those who find themselves within that particular instance of designing. With the category, I hope to have achieved relevance and to have explained the practice in question. In that regard, typically, a core category is 'captivating'. Participants tend to remember it. (See Glaser & Strauss 1967, p. 114.) However, this remains to be seen. It was not within the scope of this study to do a follow-up of the participants to see whether the theory has a degree of 'grab'.

As said, the empirical scope in this study was limited to the observation of PowerPoint presentations. The focus of this study was on public design presentations, which allowed me to demarcate a continuous staged interaction for analysis. An extension of the empirical field to other platforms for presentation could lead to important modifications to the framework. For instance, spatial platforms that would allow 3D representations, such as exhibition spaces or prototyping workshops; or digital platforms that would allow interactivity, such as websites of product presentations; or video presentations that have gone through extensive editing production, such as Kickstarter videos, etc. The inclusion of such platforms could result in further development of the framework, but would likely require a different methodology in approach.

The methods of representation used in the presentations discussed in this study are limited in range. A key focus of this study is the discussion of customer journey mapping or prototypes, and how such methods of representation provide narrative weight to a storied design as a result. However, other methods are thinkable and remain undiscussed, such as mood boards, video, theatre, etc. As said, design methods play a crucial role in the production of representations that allow a particular dramatic development to be mobilized across the presentational pane with a storied design as a result. A systematic inquiry into how various methods do that, and to what extent each method can contribute in doing so, would greatly enrich the framework further.

In extension to the prior point, previous literature has already addressed design methods as means of communication. In this study, the study of design methods and how they are staged was essential in understanding the role of methods within the framework of storied design. To what degree this literature can be held as an emergent integrative fit would also expand the framework in empirical scope.

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Being of Chinese origin, Tjhien Liao was born and raised in the Netherlands. He obtained his MSc degree in Industrial Design Engineering at the Delft University of Technology. Since then, he has worked in the fields of interaction design and user experience research, applying his skills in developing digital and online products. To pursue his doctoral studies on the topic of interaction and service design, Tjhien obtained a position at the Aalto University, School of Arts, Design and Architecture. Tjhien's research focuses on the shifting conditions of interaction and service design and the role of narrative construction in these areas of design practice. His research has been published in design periodicals, including *Journal of CoDesign*, and the proceedings of several international academic conferences, such as International Association of Societies of Design Research, Design History Society Annual Conference and International Conference on Engineering and Product Design Education.

Presenting a design may be relatively straightforward, when it concerns an object that can be 'brought into the room' for demonstration. In interaction and service design, however, the object of design typically cannot be presented this way. Rather, a disposition needs to be developed that pertains to both a designed object as well as its narrative counterpart, in order to represent the design in a particular way - its outcome being a storied design. This study proposes a theoretical framework of storied design to demonstrate and explain a trending communicative practice in interaction and service design presentation.

The empirical basis of the research is in comparative video analysis of design presentations given to a general audience. Combined with a grounded theory approach, the study identifies the act of storied designing that is drawn from and grounded in how interaction and service designers show and explain their designs.

This dissertation provides novel insights for design professionals, researchers and educators alike in the face of today's trends and challenges in interaction and service design.



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