“It’s not enough to say, ‘[The computer] is an empowering device.’ Well, yeah, right, we know that. It can add numbers. It can help me type. That’s not the end product. In its guise as a tool, that’s what a computer does, but at the end of the day what a computer is for is making a representation of just about anything—a representation of how a cell works or what a star looks like or what life is like or what a fantasy world is like. […] it is a representation-making device, and that is the reason to be interested in it as a technology.”

– Brenda Laurel in interview (1998:133)
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Kent William Grefstad Innholt
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REFERENCES
1 INTRODUCTION

Games have been around for thousands of years (Green, 2007; Egenfeldt-Nielsen et al., 2008: 248), but videogames are a fairly recent phenomenon. Their roots stretch back to 1947 and a patent filed by TV engineer Thomas T. Goldsmith Jr. on a ‘missile simulator,’ inspired by wartime radar displays. Various efforts were also recorded in the 1950s and 60s, as engineers explored what could be done with the huge mainframe computers of the era (Poole, 2000: 15; Kerr, 2006: 12; Winter, 2008; Hevesi, 2009). However, mainstream interest and adoption first gained momentum during the 1970s, fueled in no small part by the release of hit arcade games such as Pong in 1972, and Space Invaders in 1978 (Flew, 2008: 128).

Through the later 1970s and the 1980s, a myriad of hardware platforms and game production companies emerged and started to clamor for people’s attention and money in the new market. Ralph Baer and his Magnavox Odyssey had set the precedent in 1972 by suggesting that small, living room-friendly machines could be connected to ordinary TVs to allow for game playing, and thus the videogame console was born. By the end of the 1970s, the competition had gotten fierce (Wolf and Perron, 2003: 4 and 304), and though power shifts and economical setbacks were endured in the late 1970s and early 1980s (Kinder, 1991: 87–89), this new form of entertainment had come to stay. Today, the videogame industry is a leading entertainment industry worth approximately 20–30 billion US dollars, and an intrinsic part of contemporary cultural economy (Kerr, 2006: 48).

During the early years of videogames in the 1970s, the notion of playing them was not necessarily seen as a predominantly male activity, but was often rather represented as “fun for the whole family” (Graner Ray, 2004: xiii). In the 1980s and 1990s, however, the image of videogames as ‘boys’ toys’ became more and more prevalent. Sheri Graner Ray notes that “by the early 1990s, the market had firmly established itself as a ‘males, ages 13–25’ domain, and publishers began to churn out title after title aimed squarely at that market” (ibid: xiii). Henry Jenkins and Justine Cassell (2008: 7) write that by the mid-1990s, the console game market had entered “an age of heightened competition and an oversaturated market” as 90 percent of American boys were already playing computer games.

By the mid-1990s, this perceived trend of ‘masculinization’ of graphics, content and game advertising was understood to have gotten so one-sided that it triggered a counter-culture movement in the American games industry and academia, and efforts were made to create games for a new
audience—the girls. Fueled in part by the great success of Mattel’s PC game *Barbie Fashion Designer*, which sold over 600,000 copies (Graner Ray, 2004: xiv), various upstarts such as Purple Moon, Her Interactive, Girl Games and Girltech sought to tap into this presumed, unreach market (Cassell and Jenkins, 1998b; Kerr, 2006: 97; Jenkins and Cassell, 2008; Laurel, 2008). The theoretical approaches of this movement, as documented in the book *From Barbie to Mortal Kombat*, were rather diverse (Cassell and Jenkins, 1998a). However, the idea that videogames had been allowed to cater too much to boys’ tastes and fantasies was a common foundation for several of the resultant games, such as the *Rockett’s World* games, the *Nancy Drew* games and *McKenzie & Co*. Looking back, Megan Gaiser of Her Interactive said that one of the things she had learned as she got onboard with the company was that “there was nothing out there for women, and nothing out there for girls except for Barbie” (2008: 304). Brenda Laurel noted that her studio Purple Moon made a “conscious decision” to make games “specifically for girls” (1998: 121).

One explanation that has been proposed for why the games started catering to boys has been the scarcity of female videogame developers and designers (Krotoski, 2004: 6; Brathwaite, 2008: 343). Although important developers and designers such as Dona Bailey (*Centipede*), Roberta Williams (*King’s Quest* series), Jane Jensen (*Gabriel Knight* series) and Terri Brosius (*Thief* series, *System Shock 2*) helped explore the possibilities of the medium throughout the 1980s and 1990s, female videogame designers and developers still seem to be in the clear minority. In 2002, recruitment agency Aardvark Swift reported placing 9% female workers into the European videogame industry, while the UK industry at large had 16% female workers in 2002 and 12% female workers in 2006 (Skillset, 2003: 22; Krotoski, 2004: 19; Skillset, 2006: 14). Annika Olofsdotter Bergström, one of the initiators of an intervention-based project promoting female game developers and designers in Sweden, reported that in 2003, the percentage of women in the Swedish games industry was about 5%, and found the same figure for Swedish women in game related education the same year (Bergström, 2009: 31). Similarly, Helen Jesok Gansmo et al. note that in 2003, the Norwegian games industry was “very much an industry of young men” (2003a: 17). Jenkins and Cassell (2008: 13) wrote that there had been “almost no increase in the number of women working within the game industry” in the period between 1998 and 2008.

Presupposing that men and women prefer different qualities in their entertainment, it has been proposed that the relative ubiquity of men in the design and development of games has ‘skewed’ the resulting games to cater more to ‘masculine’ preferences than ‘feminine,’ and that this over time, through decades of published games, has helped create the impression that videogames were always inherently more interesting to males (Cassell and Jenkins, 1998a; Graner Ray, 2004; Krotoski, 2004: 6; Kafai et al., 2008: xiv). Justine Cassell and Henry Jenkins write that female game designers “constantly complain that their ideas were rejected because they did not conform to their company’s often implicit assumptions about what made for a ‘good game’ or a ‘fun’ product” (1998b: 26).
This view is to some extent supported by studies showing that boys tend to play more than girls. John C. Wright et al. (1997: 44) found that American boys on average played “about three times as many minutes per week with games as girls,” concluding that this was “no surprise.” Furthermore, in a Belgian study of “heavy users” of games, defined as people who played more than 2 hours a day, Keith Roe and Daniel Muijs found that 76.8% of these, for the sample, were male (N=890; 1998: 188). In Norway, 53% of boys aged 9–15 played videogames (PC and console games) on an average day in 2008, compared to 30% of girls in the same age group (SSB, 2009). Looking at the population as a whole, 19% of males played games on an average day whereas 8% of women did.

Other studies present a more even picture. The American videogame industry organ Electronic Software Association (ESA) claims in their annual presentation Essential Facts that the male–female percentage of American game players is 60 to 40 (ESA, 2009: 3). ESA does however not disclose its definition of ‘game player,’ and since it is an industry organization dedicated to the interests of its participating companies, it might have an interest in framing the situation with relative gender equality. However, a BBC-initiated study concerned with “gamers in the UK” produced similar numbers. BBC looked at all UK inhabitants aged 6–65, defining a “gamer” as someone who had “played a game within the last 6 months” (BBC, 2005: 2). With this definition, 55% of the gamers were male and 45% female. Furthermore, even when looking at “heavy” players (defined as people who played at least once a week) the difference seemed slight: 27% of the participants who fell into this group were male, compared to 21% female (ibid: 5).

Nevertheless, the dominant industry discourse has remained relatively stable in that videogames are still often (although sometimes implicitly) described as a male pastime. In a short analysis of Nintendo’s efforts to attract female players, Bonnie Ruberg remarked that “even as Nintendo looks toward its female market, they still consider women as secondary gamers” (2006). Implicitly confirming this, Shigeru Miyamoto, renowned videogame designer and creator of the Mario and Zelda series, spoke in 2007 about Nintendo’s hopes for their new videogame console, the Wii. He said that he hoped their new games, such as the motion-controlled sports title Wii Sports, could “interest women,” implying that this was not common with earlier games. “Hopefully women will begin to enjoy games more,” he concluded (Bramwell, 2007).

Miyamoto’s words are typical of how the videogame industry expresses assumptions about players’ gender, describing a ‘transition’ through which women are now a ‘new market’ to be ‘reached.’ Sean Dromgoole, spokesperson for GameVision, a research agency working for the videogame industry, paints a similar picture. According to Dromgoole, the big trends in the UK videogame audience today are “more women, more ‘lighter’ players, and more grown-up and elderly players” (2009: 12:44). Network engineer at Red Storm, Judy Leedom Tyrer, told journalist Walaika Haskins in an interview (2008) that she felt gaming was “in a state of transition.” Five years ago, she said, the gaming industry focused more on men. “Women get increasingly comfortable with the technology,” she argued, “no longer viewing computers as something boy geeks play with.”
1.1 **Understanding videogames**

The understanding that videogames are in the process of ‘growing up’ by including women as possible players is thus common, and has been constitutive to this thesis, which concerns the design situation of *gender-aware videogames*. In addition to the theoretical understanding of the design process itself, such a design situation involves three further understandings: The understanding of videogames, the understanding of gender, and the understanding of the dialectical relationship between the two. Whereas the rest of the thesis will concern the latter two understandings, I will detail my understanding of videogames themselves in this section.

Fundamental to my own understanding of videogames is the notion that, although there are similarities between videogames and other means of expression, such as play, literature and theatre, videogames should generally be understood, studied and criticized as a *new medium*. The pleasures they offer can perhaps seem paradoxical: videogames can provide stress relief and exploratory wonder, conquest and mastery, socializing and simple joy of play—but they are also often seen as related to addiction and glamorization of violent fantasies. Through their worlds, their rules and their drama, videogames are cultural artifacts, in some respects similar to other cultural expressions. But they are also a *new kind* of cultural artifact: Although videogames vary considerably as to the extent that they provide literary and theatrical value—some games provide more drama, more characterization and more room for theatrical expression than others—they all provide and encourage *play*. Videogames are, first and foremost, *interactive*, to be toyed with, explored and negotiated. This makes them fundamentally different to media such as film, literature, TV, or music.

The word ‘game’ in a traditional sense is often connected to the concepts of ‘goals’ and ‘competition,’ frequently also with ‘scoring’ and ‘rewards.’ Although goals and rewards are present in most, if not all, videogames (Crawford, 2003: 5–10), modern videogames have to some extent surpassed the limitations of older types of games. Today, many videogames take cues from tabletop role playing and film in order to incorporate drama and artful depictions of realities, thus creating virtual worlds for the players to visit and explore. Moreover, goals and competition is deemphasized in many software artifacts that are otherwise sold as ‘videogames.’ I will not go in detail on this definitional debate. Instead, I will just note that the theoretical limitations of what is and what is not a videogame were to some extent disregarded in the design process I describe. This was a conscious choice based on the experimentalist approach that characterized the project.

On a semantic note, it is also worth noting that I consequently use the term ‘videogames’ to describe this medium. Terminology in this field is still somewhat contested as authors differ in whether they use ‘videogames’ (or ‘video games’), ‘digital games,’ ‘electronic games,’ or ‘computer games’ to describe the field (Poole, 2000: 21; Kerr, 2006: 3). For the sake of clarity, I will state here that the concept of videogames has shown itself to be independent of the technology that facilitates their

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1 For more thorough treatments, Aphra Kerr (2006) and Egenfeldt-Nielsen et al. (2008) can be recommended.
playing, and that I will therefore take ‘videogames’ to include arcade, computer, console, and mobile
games in what follows.

Finally, although videogames are a global phenomenon with a strong cultural presence in Europe,
the U.S., Japan and a host of other countries, they are not equally available in all countries or to all
people (Kerr, 2006: 106). However, this thesis primarily concerns women from countries where
videogames are part of the mainstream to a similar extent, in particular Norway, the UK, and the U.S.

1.2 Research on gender and videogames

A number of theoretical and practical studies have been undertaken to explore the relationship
between gender and videogames, with a varied set of approaches to the situation. Of central concern
has been girls’ and women’s access to videogame equipment and culture (Yates and Littleton, 2001;
Háþnes and Rasmussen, 2003: 180-184; Lægran, 2003: 216–219; Taylor, 2006; Lin, 2008; Taylor,
2008). Other studies have covered how girls and women, as opposed to boys and men, might differ
in the way they appreciate certain videogame design solutions and learning styles (Brunner et al.,
1998; Graner Ray, 2004; Turkle, 2005). The way videogames represent gender through their
narrative structure (i.e. ‘save the princess’) and the way gender is represented and performed as the
player inhabits a virtual self, a so-called avatar, have also received considerable attention (Kinder,
1991; Graner Ray, 2004: 17–36 and 93–107; Burgess et al., 2007; Corneliusen, 2008). Finally,
concerns with the position of women within game development have led to a number of projects
studying the work conditions in the industry, as well as some attempting intervention and disruption
(Consalvo, 2008; Flanagan and Nissenbaum, 2008; Fullerton et al., 2008; Laurel, 2008; Bergström,
2009).

Although many of these efforts have shown themselves to be highly relevant to my research and will
be returned to, the main focal point in this thesis is the interaction design situation itself. Because of
this, the concepts and understandings I have brought to this thesis have also been shaped by the
nature and characteristics of the design situation. I will elaborate on this in chapter 2.

1.3 Aim(s) and research question(s)

As noted, prominent voices in today’s videogame industry often seem to describe a need to create
games ‘for women.’ But what does it mean to ‘design for women’?

To investigate this question I will conduct a design process, to envision, iterate upon and construct a
functioning videogame prototype—with the aim to create a ‘game for women.’ Through this
process, I will investigate the overarching question—‘What does it mean to design for women’—
from three perspectives.
With the **first perspective**, I explore possible elements of game design, with an underlying assumption that women and men might have different preferences in videogames. Seen through this perspective, the research question asks: ‘What elements in videogame design appeal better to women?’

With the **second perspective**, I look for new kinds of meanings to answer my initial question—I investigate the context of use/play. I now ask, ‘How do women relate to videogames, as a concept, and in play situations?’

The first perspective concerns primarily the internal aspects of the play situation—the process in which a player interacts with a game, ‘feels it,’ immerses herself with it. Conversely, the second perspective is more concerned with the external, contextual aspects of play and the design of play. However, there is no clear delineation between the perspectives. It is impossible to conceive of an ‘internal’ play situation that is not affected by context—we cannot escape our bodies, even though videogames can sometimes make it feel like it.

Finally, with the **third perspective**, building upon the insights that are gained with the first and second perspective, I investigate the design process itself. Seen through this perspective, the research question wonders: ‘How do conceptions of gender shape the design process?’ Whereas the first and second perspective will be regularly visited throughout this thesis’ presentation, I consider the third perspective to be a case of reflection—I will thus try to answer it only towards the very end of the thesis.

### 1.4 Motivation

Two questions might be posed about my motivation for writing this thesis. First, why explore the design situation of videogames? Secondly, why explore the situation of designing videogames for women?

To answer the first question, I will point to the fact that videogames today are a mass medium. Through playing games on their computers, videogame consoles, mobile phones or handhelds, millions upon millions of people experience the joys and frustrations of videogames each day. The best-selling videogame consoles sell forty, sixty, sometimes over a hundred millions of units over the course of their lifetime, whereas computers and mobile phones, which can also play games, are even more ubiquitous. In their ubiquity they have become an intrinsic part of everyday life throughout large parts of the world, and intertwined with the well-being and social relationships of the people who play them.

In answering the second question, it is worth looking at the understanding of the gender–videogames relationship that led me in this direction to begin with. Going into the project, I was under the impression that gender values in the videogame industry were still very profound. It
seemed to me that the most high-profile, expensive titles were marketed as brawny, muscular, macho power fantasies about shooting people and blowing things up. Videogames were still promoted at major industry conventions with scantily-clad women. Female game developers very rarely made the headlines. Moreover, and most importantly, my personal experience with female friends was that few of them seemed to share the enthusiasm my male friends showed for videogames. Because of all of these observations, I was under the impression that gender was a significant factor in the way videogames were played, appropriated, designed and understood.

It is also worth noting that the thesis on a fundamental level represents a feminist stance: I want a world in which gender is not a hindrance to participation and enjoyment—on any level.

1.5 Delimitations

The main focus of this thesis is on adult women, as opposed to girls or adolescents. Early in the project, I used ‘women 25–50’ as a rough guideline for the group of people I would concern myself with, although some of my informants turned out to be a bit younger than this, the youngest one only 19 and some of the others in the 20–25 range.

Considerably more research has been conducted on the videogame preferences and play situations of young girls and teenagers than have been attributed adult women (Cassell and Jenkins, 1998a; Håpnes and Rasmussen, 2003; Turkle, 2005; Kafai et al., 2008). This may be because videogame playing is still an activity commonly associated with children, and children play considerably more videogames than adults, both in Norway and in the UK. SSB (2009) notes that 10% of 25–44 year old Norwegians played a videogame on an average day in 2008, whereas 43% of 9–12-year-olds and 41% of 13–15-year-olds did. Similarly, GameVision (Dromgoole, 2009) claims that almost all children (~90%) in the UK are “active gamers” in the sense that they have bought a game, or have had one bought for them, in the last 12 months, compared to around 37% in the 20–29 bracket.

The reason why I wanted to focus on adult women’s relationship to games in particular, is both because of the relative abundance of studies on young girls and teenagers, and also because I am interested in adults’ relationship to games in general. At the time of writing, I am 26 and do not feel like I am losing interest in videogames as a medium, even though the time I have for them may be more limited than what it was ten years ago. If other adults are disinterested in games I am therefore curious as to why.

The upper limit of the figure, cutting off women above the age of 50, is somewhat arbitrary. The reason for selecting such a limit was an assumption that technophobia and computer illiteracy would be more common with people above this age, and that I wanted to focus my work on people that were relatively comfortable with computers. It is obvious that many people over 50 are comfortable with computers, and by limiting my informant pool to women under 50, it is possible that the
conducted research missed significant player positions. For instance, most of the informants in their 40s positioned themselves very clearly as mothers when relating to games, on a number of levels such as having other duties in the home—perhaps older (retired?) women would feel more comfortable identifying with such an "egocentric" use of leisure time as videogames?

Conversely, one might ask whether I have been too broad in defining the group to be studied as women between 20 and 50. These women typically have vastly different life situations and it is as such not given that they have anything in common. However, I believe the research shows that there are similarities in the positioning strategies used by the younger and the older women.

1.6 Division of tasks

The research project described in this thesis was conducted in collaboration with my co-worker, Erlend Grefsrud, who used some of our research in his bachelor’s thesis at Southbank University in London. The surveys, as well as the planning and questions for the group interview on November 19th, were joint efforts. Erlend was the interviewer for this first group interview, and did the transcription work for it. The rest of the interviews, play testing sessions, and workshop activities (see table 3.1) were conducted by me.

Furthermore, Erlend was crucial in the envisioning, design and realization of the software prototype, where he worked on the characters, the graphical user interface, the 3D modeling and the narrative. The game design process was a joint effort. My responsibility on the prototype was writing the software itself.

Erlend was not involved in writing the thesis itself.

1.7 Structure of the thesis

In chapter 2, I outline the theoretical foundations for my study, and describe why a multi-disciplinary approach was desirable. In chapter 3, I provide an overview of the research design, including descriptions of methods and reflections on their use. The thesis project has been structured by the practical design process of a software game prototype. This process is described in chapter 4.

In chapter 5, I present the data I have collected in my study, including the results of the survey, the findings of the interviews, the game testing sessions and the prototype evaluation sessions. In chapter 6, I provide a discussion of these data, organized by the three perspectives I have applied to the research question. Finally, in chapter 7, I conclude the thesis by reflecting on the nature of my research work.
2 THE EVOLUTION OF A THEORETICAL APPROACH

This thesis has its basis in the fields of human–computer interaction (HCI) and interaction design, and is the end result of five years of education in information technology with a specialization in systems development. Although my educational background is of a technical nature, it has become increasingly evident to me over the years that the process of designing good software—software that is pleasant, interesting, efficient, ethically aware, and evocative of affection—demands more than just technical mastery on the part of the software designer. Clean, organized and efficient architectural and algorithmic solutions are important qualities in software development. However, in many cases, the functional and cultural qualities of the human-computer dialog are just as crucial to the end result—as far as the user is concerned, the use experience is the product.

In this chapter, I present what interaction design is and how it relates to videogame design. I will then describe how videogame design, like interaction design, is an accountable practice. As a multidisciplinary field of study, interaction design has a tradition for seeking out new ways to think about the world. Due to the accountability of the design situation, I have sought inspiration with, and found utility in, concepts from sociology and feminism, which will be presented next. Concluding this chapter, I provide an overview of scholarly approaches to gender and technology.

2.1 Interaction design as an extension of human-computer interaction

The design of artifacts to meet certain goals is an age-old activity in society, but with the advent of electronics and computer technology, the artifacts people design have seemingly gotten increasingly complicated and potent. With time, new fields of study have arose to help organize our thinking on the design of these new, digital artifacts. Two prominent such fields are human-computer interaction and interaction design.

HCI is the older of the two terms, and generally concerns a variety of aspects about how people use computers. The foundations of the field were laid at a time when single-user, single-computer
scenarios were the most typical, which is why HCI as a field has traditionally placed most of its emphasis on areas such as user interface design, graphical interfaces, user modeling and software testing. However, SIGCHI, the HCI special interest group of the Association for Computing Machinery, points out that HCI today is a broad and interdisciplinary field, drawing from supporting knowledge within communication theory, graphic and industrial design disciplines, linguistics, social sciences, cognitive psychology, and human performance (SIGCHI, 2009).

Interaction design is a somewhat newer term, and is often described as some kind of an *extension*, or *superset* of human-computer interaction. Jennifer Preece et al. claim that interaction design is something “more” than human-computer interaction, “concerned with a broader scope of issues, topics, and paradigms” (2002: v). They position HCI and interaction design as closely interrelated but not synonymous (ibid: 8). Dan Saffer performs a similar contextualization, but his is more informative, as he presents the same amount of overlap between HCI and interaction design as he does between interaction design and industrial design (the design of physical products such as chairs or refrigerators) (2007: 18). According to Saffer, HCI tends to focus “on how humans relate to computers, unlike interaction design, which is about how humans relate to each other.”

For Gillian Crampton Smith and Philip Tabor, the primary characteristic of interaction design is that it requires *artist-designers*, because it is more art than science. As such, they position the term as the digital branch of design practice (Crampton Smith and Tabor, 1996: 56). This sentiment is shared by Jonas Löwgren and Erik Stolterman, who describe their book *Thoughtful Interaction Design* as being an elaboration on what it means that interaction design is a design discipline (2004: 6). Similarly, when Terry Winograd and Philip Tabor compare interaction design to architecture (1996), the subjective and expressive nature of the activity is made visible. Interaction design, then, like other design disciplines, is part craft and part art. Like software engineering, it has *methods* and *methodologies* and *structure*, but these are never a complete description of the interaction design process. The successful interaction designer will never be able to solve her or his ‘problems’ like formal or mathematical problems—solutions to interaction design problems are never ‘right’ or ‘wrong,’ only more or less suitable and successful (Löwgren and Stolterman, 2004: 9 and 93).

It is worth noting that I am not interested in discrediting HCI as a narrow field of study, as it clearly is not. Many of the methods that have been applied throughout the process have furthermore been just as much part of HCI tradition as interaction design. However, given the descriptions I have given about what it entails to be an interaction designer—namely that it means being concerned about the social context of an artifact’s creation and use, and that it includes a very marked element of creative freedom—I have come to see the latter term as the most descriptive.
2.2 Videogame design as a subset of interaction design

Videogames are digital games normally played with a screen and some form of input device. Common setups include videogame consoles, where a compact computer is connected to a TV, mobile phones, where the input is the numerical keypad and the screen is that of the mobile phone itself, and home computers, where the player can use a mouse, joystick or keyboard to interact with the game. Videogames can be abstract, like *Tetris*, which concerns filling holes and completing rows, or they can try to approximate reality, or a fantasy version of reality, in order to create a ‘microworld’ for the player to explore. Videogame design is the design discipline concerned with understanding the principles and patterns that help create good, engaging and interesting videogames. Like other design disciplines, it is both art and craft, a creative endeavor without any recipes for success—and like other design disciplines, the defining of its aesthetical and analytical language(s) is a constantly ongoing process (Aarseth, 1997; Costikyan, 2002; Crawford, 2003; Salen & Zimmerman, 2004; Koster, 2005; Juul, 2005; Cook, 2007; Corneliussen, 2008).

Jonas Löwgren and Erik Stolterman describe interaction design as “the process that is arranged within existing resource constraints to create, shape, and decide all use-oriented qualities (structural, functional, ethical, and aesthetic) of a digital artifact for one or many clients” (2004: 5). By this definition, the videogame designer could be said to be a specialized interaction designer: The artifact—the videogame—is clearly digital, resource constraints are usually prevalent (time, money, assets, technical ability), and it is indeed the responsibility of the designer to create, shape, and decide the game’s qualities. In this light, videogame design is a subset of interaction design.

However, it is worth noting that videogame design is also something *more*—it is a specialized discipline with principles and patterns not commonly found elsewhere in interaction design literature (Cook, 2009). Videogames are not only “digital artifacts,” which is a rather broad term, they are also ‘games,’ which means that they are commonly understood to involve winners and losers, goals, rules, conflict, challenges, and rewards (Crawford, 2003: 5; Salen and Zimmerman, 2004: 28). By positioning videogame design as a subset of interaction design it is therefore not implied that experienced interaction designers already know all they need to know to be successful videogame designers: the techniques and concepts of videogame design can produce a sense of accomplishment and joy that other designers might envy.
In figure 2.1, I have tried to visualize my understanding of videogame design—as a subset of interaction design and human-computer interaction, but also as something more. ‘Understandings of gender’ and ‘sociology’ are relevant to all three disciplines, whereas play, games and competition, storytelling, theatre, vacation and spectacle might be said to be concepts even more relevant to, and common in, videogames than in the surrounding disciplines. It is worth noting that models often aim to visualize a certain relationship. This model’s aim was to relate the fields I see as central to my approach; both other models and other approaches may of course be valid as well.

2.3 The accountability of the design process

Like all designed artifacts, videogames are not separate from the world but based in a certain context, products of a certain time and place, and a certain set of (pre)dispositions in the designers. The designers’ (pre)conceptions about the users/players and what they may want out of the artifact/game will be part of the process, whether the designer is consciously aware of them or not. Jonas Löwgren and Erik Stolterman write that “each design is carrying a set of basic assumptions about what it means to be human, to live in a society, to work, and to play,” and that as such, any act of design is also a political and ideological activity (2004: 10).

One way such assumptions are expressed is through restrictions. Löwgren and Stolterman write that every digital artifact “restricts our space of possible actions by permitting certain actions, promoting certain skills, and focusing on certain outcomes,” and that “to some extent, the user has to adapt to the artifact.” This is also true for videogames, as one of the defining traits of videogames as a medium is the fact that all videogames define a set of rules of interaction (Salen and Zimmerman, 2004: 117). Such rules restrict the player in some way, deciding what actions will be available to her or him.
Videogame design therefore involves the creation and selection of the gameworld’s boundaries, where violations of these boundaries are not only subject to punishment, as in the real world, but technically impossible within the context of the game. The videogame designer is the ‘god’ of the virtual realm—the architect and the rule-maker—which means that s/he will also, consciously or not, make decisions on the policies, the organizational structures (if any) and the moral value set of this said realm. Because of this relationship between designer and gameworld, videogames are able to reinforce or question ethical or ideological currents. Activist videogame researchers Mary Flanagan and Helen Nissenbaum (2008: 265) write that games carry “beliefs within their representation systems and structures, whether the designers intend them or not,” noting how *The Sims* is said to teach consumer consumption and how the *Grand Theft Auto* rewards criminal behavior.

Because of this, videogame design, as well as interaction design more generally, is an accountable process (Suchman, 2002). In this context, accountability derives from the production of meaning and the subjectivity of the one(s) producing the meaning. As a designer, I am a person with a world view, a set of opinions, a set of predispositions, and a set of interests for the product to be designed. Any interaction design process is therefore a subjective process, since it cannot be conducted without the people conducting it. However, the inevitability of the subjective does not mean that anything goes. Lucy Suchman writes that “the fact that our knowing is relative to and limited by our locations does not in any sense relieve us of responsibility from it. On the contrary, it is precisely the fact that our vision of the world is a *vision from somewhere*—that it is inextricably based in an embodied, and therefore partial, perspective—which makes us personally responsible for it” (ibid: 96, original emphasis).

It has become my position that this sense of responsibility and self-awareness are crucial qualities for an interaction/videogame designer. Jonas Löwgren and Erik Stolterman have been inspirational in this respect, by emphasizing that the designer should strive to be *thoughtful* and reflective (2004: 43–61). They write that “every design, however small, is a part of what can be seen as the largest design project of them all—the joint design of the world as a place for human life” (ibid:12). Alan Dix et al. elaborate within this same vein, pointing out the contextual nature of interaction design and that the result of design is *intervention*. They write:

*Interaction design is not just about the artifact that is produced, whether a physical device or a computer program, but about understanding and choosing how that is going to affect the way people work. [...] Because of this it may be better not to think of designing a system, or an artifact, but to think instead about designing interventions. The product of a design exercise is that we intervene to change the situation as it is; we hope, of course, changing it for the better!* (2004: 192, emphasis in original text)

Given this emphasis on accountability and intervention, it was natural for me to start looking for ways in which my own preconceptions about the world could be problematized and/or reassessed. In this, the methods most commonly described in HCI literature were not of sufficient help—what I
needed to reflect more on was the gender values of the design situation itself. In this, I sought inspiration in the ‘technological feminist’ tradition of authors such as Lucy Suchman (2002), Judy Wajcman (1991, 2004), Merete Lie (2003a), and Christina Mörtberg (2003a, 2003b), who posed new perspectives on the process of (technological) design. These scholars have made visible how designers should obtain contextual knowledge not only about how users act and what they ‘prefer,’ but also about how they might act and what they might prefer—not in the sense of attempting to preempt people’s actions and preferences, but in the sense of looking for power relationships and causes even though they may not be visible outright to everyday users.

As an example of this, when Sherry Turkle presented her study of boys’ and girls’ interaction with computers in The Second Self (2005, orig. 1984), she made a distinction between soft mastery and hard mastery of the computer. Hard mastery, Turkle wrote, was “the imposition of will over the machine through the implementation of a plan. [...] Getting the program to work is more like getting ‘to say one’s piece’ than allowing ideas to emerge in the give-and-take of conversation.” In contrast, soft mastery was described as “more interactive [...] like a painter who stands back between brushstrokes, looks at the canvas, and only from this contemplation decides what to do next [...] more like a conversation than a monologue” (ibid: 101). Turkle went on to point out that the girls tended to be soft masters whereas the opposite was true of the boys. It is however not obvious what kinds of conclusions that could, or should, be drawn from these observations. With a positivist perspective, one might conclude that interactive artifacts that produce better results with hard masters are inherently best suited to this group of people. However, Judy Wajcman writes in Feminism Confronts Technology that we should be “extremely wary of saying that because women have different ways of proceeding, this indicates a fundamental difference in capacity.” Rather, Wajcman argues, “such discrepancies in cognitive style as can be observed are the consequence of major sexual inequalities in power” (1991: 158).

This literature thus led me in the direction of power relations. Although I wanted to keep the rough subject of the thesis intact as ‘videogame design for women,’ I came to the conclusion that as an interaction/videogame designer in what might be said to resemble an ‘ideal’ researcher position, without pressing limitations neither on money nor time, I should strive to obtain a broader and more critical view of gender itself. I found inspiration for such ‘broader’ perspectives in sociological and feminist literature. In the following sections, I will give an overview of the theoretical approaches from these fields that I have found useful in my work, and which will be used in the data analysis and discussion in chapter 5 and 6.

2.4 Discourse theory and subject positions

The field of discourse theory is the first of the two theoretical frameworks that have helped me contextualize my study. Understandings of what a discourse is and what it includes vary considerably with author and scholarly fields of studies (Stubbs, 1983: 9; Corneliussen, 2002: 64). The French
philosopher, sociologist and historian Michel Foucault has been very influential in the way the term is understood and used within post-structuralism, critical feminism and sociology, and also for the understandings that I have attained in my work. He writes:

*Discursive practices are characterized by the delimitation of a field of objects, the definition of a legitimate perspective for the agent of knowledge, and the fixing of norms for the elaboration of concepts and theories. Thus, each discursive practice implies a play of prescriptions that designate its exclusions and choices.* (1980: 199)

On a fundamental level, discourse is about what *is being said*—but it is crucially also about what *cannot* be said. Anne Cranny-Francis et al. write that discourses operate “not only by defining their field of interest,” but also by “establishing what is a viable perspective on this field” (2003: 93). A discourse is a *formative* concept, that is, not something that can be ‘seen’ or ‘heard’ directly but that is made evident by its effects—it is only ‘visible’ because of the effects it has. By being aware of ‘what is commonly said’ (a common discourse), a speaker may desire to say something similar, thus being or becoming a part of a collective, discursive ‘we.’ This is the primary way in which discourse shapes reality—because people are inherently socially attuned, they are acutely aware at all times of what utterances that are expected and thus allowed, and what utterances are *not* expected and thus might produce more social friction and conflict.

According to Foucault, a discourse is not a “timeless, ideal form” that for some reason “emerges” at a point in time—rather it is a “fragment” of history, “a unity and discontinuity in history itself, posing the problem of its own limits, its divisions, its transformations, the specific modes of its temporality” (Foucault, 2002: 131). Thus discourses are not necessarily static—for example, the discourse ‘videogames are for asocial boys and men’ may be moving towards destabilization. Instead, I have come to understand discourses as ‘temporarily locked truths’ (Corneliussen, 2002: 74). This temporality is crucial to the outlook of the feminist inclinations of my approach. It is fundamental that the ways we talk shape the ways we think, and act. Thus changing the ways we talk is imperative to changing undesirable social practices—and the subject is understood to be both shaped by, and shaping the social reality in which s/he lives (ibid).

In my analysis and discussion, I will also use the term *subject position* to describe and make sense of what I have observed. My understanding of this term derives from the work of Ernesto Laclau and Chantal Mouffe (2001), and in particular from the elaborations on Laclau and Mouffe’s work provided by Hilde Corneliussen (2002). On a fundamental level, subject positions “designate a discursive point of identification within a discourse” (Winther Jørgensen and Phillips, 1999: 55). By saying and doing certain things, the subject (individual) either accepts, challenges, or rejects the subject positions that have been established within the discourse. This *positioning strategy* has both internal and external effects—it affects the individual’s ‘sense of self,’ and it affects the way other persons perceive and make sense of the individual.
In practice, discourses are often characterized by powerful sets of historically defined subject positions. Even if a subject disagrees with the meanings and implications of such positions, they are not always possible to ignore. This is because, as noted above, even though the subject has some agency in the creation of an ‘identity’ and a ‘sense of self,’ through the choice of accepting or rejecting certain positions, s/he can also be placed in such positions by others. For example, in this thesis, general subject positions such as ‘woman’ and ‘game player’ are central to the discourses that are being analyzed. Although the subject has a large degree of agency in whether ‘game player’ is a position s/he wants to identify with, this is less so with ‘woman’; whether a person is a woman or a man is one of the fundamental ways society makes sense of that person, and even by avoiding ‘womanly’ sayings and doings, the subject cannot completely ‘escape’ the hegemonic expectations in society that ‘people always have a gender.’

One of the benefits of seeing social reality as discourses and subject positions is that the individual retains a form of coherence. It is typical of postmodern thought that reality and human beings are both seen as multifaceted and ‘fragmented,’ thus challenging the notion that an individual has a wholesome, coherent ‘identity.’ By introducing the concept of subject positions, this identity can be understood as a collectivity of subject positions instead of a ‘unity in conflict.’ Furthermore, by selecting to appropriate, challenge, or reject certain subject positions, the subject has a certain degree of agency in the discursive definitional project of establishing her/his ‘identity.’

2.5 Feminism(s), gender and performativity

Like discourse, feminism means different things to different people and in different contexts. I understand the term to include a host of different theories, movements and discourses in society, which are united by the fact that they all concern the relations between genders and how changes could be made for the better.

A central basis for feminism’s growth as an idea and as a field during the 1800s and early 1900s was the increasing awareness of inequality and societal divisions between men and women, such as how the women in many countries were not allowed to vote. Towards the later 1900s, as more and more battles over law-inscribed inequalities has been won, the attention of many European and American feminist scholars and thinkers has turned towards the invisible, structural forces in society. However, the main tenet of feminism has remained the same—to expose the ways in which people are subject to unequal or unfair treatment, on some level, because of their gender.

In the iterative process of designing the approach of this thesis, I have been influenced by this ‘openness towards seeing inequality’ from mainstream feminisms. For instance, the perspective that led me to the subject of ‘women and games’ was that the continuing dominance of males in videogame design had shaped the medium itself to be catering more to men’s preferences (and fantasies) than women’s. However, what became evident with time was that in order to understand
the research question—which it means to ‘design for ‘women’—it was crucial to attain a more informed stance on the concept of gender itself.

Perhaps the most defining moment of 20th century thinking on sex and gender was when Simone de Beauvoir famously wrote in her treatise *The Second Sex* that “one is not born a woman, but, rather, becomes one” (1953). With her book, de Beauvoir helped popularize the idea that perhaps biological and societal conceptions of sex were separate phenomena, and the sex–gender binary was hence introduced as a new understanding in the late 1960 and through the 1970s. Through this dichotomy, sex and gender were established as two distinct terms, sex as the biologically, materially irreducible ‘fact,’ anatomy, hormones and physiology—whereas gender, on the other hand, was a social construct, something that was learnt and whose implications could be changed (West and Zimmerman, 1987: 3).

Judith Butler represents a radicalization of this tendency of denaturalization. In Butler’s view, gender is performative—it is a concept constituted by its practice, not something a person has but something a person does. By “repetition or citation of a prior and authoritative set of practices,” gender itself “accumulates the force of authority” (1997, 51). Butler writes that “there is no gender identity behind the expressions of gender,” that identity is “performatively constituted by the very ‘expressions’ that are said to be its results” (1990: 33). In other words, by the collective ‘doing’ of gender, gender itself comes into existence.

Butler’s notion of performing gender does however not mean that gender is a voluntary act, analogous to actors’ work in theatres—that one could wake up in the morning, open the closet and take out a gender to take on that day (1993: x). Neither does she by performativity mean that the subject loses all agency, ‘slave’ to the gender practices one is born into and grows up with. What Butler argues, is that there can be no pre-performative subject. From the doctor’s first “girling of the girl” (1993: 7) the subject is part of a gendered world, with “norms which precede, constrain, and exceed the performer and in that sense cannot be taken as the fabrication of the performer’s ‘will’ or choice” (1993: 234). The subject is thus not ‘free’ of context, which it can never be—yet changing norms and practices is still possible. Although discourses act in a stabilizing manner, aligning the ways we speak and act, they are not stable—they can be destabilized and thus challenged. Butler writes that “agency’ is to be found precisely at such junctures where the discourse is renewed” (1995: 135). In this manner, Butler argues that agency is part of performativity.

In this thesis, I use Judith Butler’s performativity as the main theoretical tool in the understanding of gender. It might be worth noting that I see the terms performativity of gender and discourse on gender as being similar. Butler has provided a large body of work that discusses at length the specific understandings of performativity she seeks to convey, and as such, I am not going to state that the terms are synonymous. However, it is clear that Butler draws upon Foucauldian concepts of power, sex and discourse in her work (for example, 1990: 117; 1993: 187). I have not found that the two perspectives have led to contradictions in my analysis.
2.6 Gender and technology

There exists a substantial body of knowledge on the relationship between gender and technology, and many theoretical approaches have been applied (e.g. Wajcman, 1991, 2004; Cockburn and Ormrod, 1993; Grint and Gill, 1995; Corneliusen, 2002; Mörtberg, 2003a, 2003b).

On a fundamental level, some ask the question of what technology should mean to women. Keith Grint and Rosalind Gill contextualize this by attributing different views on the gender–technology relationship to different schools of feminism (1995: 4–6). For instance, eco-feminists argue that technology is one of the patriarchal ways of dominating nature and women, and take an essentialist position by describing women as ‘closer to nature’ by way of the “female biology,” for instance as given by “the lunar cycles of menstruation” (ibid: 4). Liberal feminists, on the other hand, see technology as fundamentally neutral: what is at issue is “the different ways in which men and women are positioned in relation to it [technology]” (ibid: 6). Thus women and men differ not in skills and abilities when it comes to handling technology, instead through “gender stereotyping,” women’s potential has been “distorted” (ibid: 6).

In my own approach to the subject, I have come to see the relationship between gender and technology to demand a conscious stance regarding two questions in particular: One, whether technology itself can ever truly be said to be ‘neutral,’ and if not, two, in what ways gender and technology might shape each other.

The neutrality of technology is discussed by Lucy Suchman (2002), who underlines the situatedness of technology design processes. According to Suchman, the results of technological design processes are inherently dependant on the designers. However, Suchman argues, mechanisms such as design from nowhere and detached intimacy work to hide this situatedness of design, and instead construct the designers as ‘objective’—typically by introducing distance between the locations of design and the locations of use (ibid: 95). As an alternative to such practices, Suchman suggests what she calls located accountability, arguing that “the only possibility for the creation of effective objects is through collective knowledge of the particular and multiple locations of their production and use” (ibid: 96).

Christina Mörtberg also argues against the neutrality of technology production (2003a: 64) by pointing out that “considerations, intentions and choices” are “interwoven” also in the methodologies of system design. Mörtberg also argues (2003b: 159) that “designer’s visions of the future system are created within discourses, discourses where gender and technology are both (re)conceptualized and (re)constituted […].” Together with the interaction design literature I discussed in section 2.3, these views have been influential of my own understanding of the process of (technological) design.

The ways gender and technology might be understood as shaping each other have also received much attention from scholars. Some authors argue that gendering processes have led to a view that technology is ‘masculine’ (Wajcman, 1991; Cockburn and Ormrod, 1993). Judy Wajcman (1991)
points to the discursive inclusionary and exclusionary processes that define what ‘technology’ is. She writes that “we tend to think about technology in terms of industrial machinery and cars, for example, ignoring other technologies that affect most aspects of everyday life” (1991: 137). Similarly, Cynthia Cockburn and Susan Ormrod write:

Technology is not innocent of gender, any more than it is innocent of class. [...] the very selection and labelling of some phenomena rather than others as ‘technology’ is significant. Cooking, as much as engineering, is a technology. It involves using tools to transform matter. It is a production process. It involves special knowledge. Yet the two processes are kept conceptually quite distinct. The word ‘technology’ has come to mean processes men typically create, control and use, not those that women characteristically do. (1993: 98)

This citation is part of a Cockburn and Ormrod’s gender analysis of how supermarkets and electronics shops divide their offerings into ‘white goods’ and ‘brown goods’: the brown goods are seen as ‘fun technology’ whereas white goods are seen as ‘domestic machines.’ Cockburn and Ormrod point out how this dividing line is also a question of gender; men are seen by retailer staff as both ‘individual brown goods shoppers’ and as “heads of household” in white goods shopping, whereas women are “only domestic” (ibid: 112). In this way, signs, colors and divisions between shop departments construct a division that relates certain technologies to men and others to women, and it is made to seem ‘natural’ that men are the ones interested in non-domestic forms of technology.

The last ten years, however, this kind of analysis, which gained prominence in the 1990s, has arguably been challenged by how the women of many western societies (again, my emphasis is on Norway, the UK, and the U.S.) have appropriated contemporary technology, without this technology losing its status as technology. Visible and prominent examples of this include laptop computers, digital cameras, music players, mobile phones and the Internet. Helen Jøsok Gansmo et al. write that “the symbolic interpretation of gender and ICT [information and communication technologies] may have changed over time” (2003b: 37), and Christina Mörtberg point out that mobile phones are now a ubiquitous commodity in Norway with both men and women (2003b: 158). Although some studies show that there still is a dominant discourse that men are more technically apt than women (Corneliussen, 2002: 250–255), this discourse is being challenged by contemporary ideals of womanhood, which increasingly seem to allow and encourage usage of a range of technologies that are also called technologies.

These empirical observations imply that a monolithic understanding of gender and technology might not be sufficient, and that a more pluralistic understanding is needed in that gender and technology might shape each other in different ways depending on situation. Maria Janson et al. argue that because people’s multiple subject positions “exist simultaneously,” their “identities are shaped in tension between various positions” and that as such, these identities are “fragmented and fluid rather than uniform and fixed” (2007: 373). Because of this, they argue, the gender–technology
construction “should be seen as the result of negotiations of borders and content rather than a foregone conclusion” (ibid: 373). Merete Lie supports the view that the gender–technology relationship should be understood as pluralistic, noting that “different symbolic expression of femininity and masculinity can exist side by side” (2003b: 265). Given that videogames are a form of technology (as well as a form of cultural expression), the question therefore becomes whether a similar pluralistic understanding could be applied to women and videogames. In her content analysis of the extremely popular online role-playing game *World of Warcraft*, Hilde Corneliussen (2008: 79) notes how the game could be said to ignore many gender stereotypes and construct in-game gender in a variety of ways. Thus, *World of Warcraft* represents, to some extent, a progression from the image of computer games as characterized by sexualized female bodies and stereotypical gender relations. In *World of Warcraft*, women can be heroes, and they do not lack physical ability compared to men (ibid).

Based on the works of these scholars, it is clear that the co-construction of gender and technology is a complex process and that the relationship between them takes different forms depending on the context. In the introduction of this thesis, I outlined how a dominant discourse within the videogame industry and press says that ‘videogames are for boys and men,’ and as I will show later, many of the women did not relate to videogames primarily on their own terms. However, by understanding the gender–technology relationship as multifaceted and unstable, it becomes clear that unwanted discourses (and thus practices) might be challenged. Judy Wajcman writes:

*Contemporary feminist criticism has sought to recover the feminine subject by challenging notions of women’s passivity and identifying the different ways in which women actively resist and subvert conventional constructions of femininity. Wary of premissing a subjectivity on the commonality of women, postmodern feminism stresses the multiplicity of identities and the desire for self-determination.* (2004: 112)

These perspectives suggest that by making visible the ways in which women relate to technology—in the case of this thesis, videogames—the connotations that exist between videogames and the masculine/feminine dichotomy might be questioned. For instance, Hilde Corneliussen found in her study on gender and computer use (2002) that some women chose to oppose the dominant discourse by calling it a ‘lie’ (ibid: 177). Worded in the terminology of discourse theory, one way the dominant discourse on ‘the masculinity of videogames’ might be destabilized, is by establishing competing discourses that show how women do engage with videogames. I will return to this in chapter 6.
RESEARCH DESIGNS AND METHODS

In this chapter, I describe the various methods I have used as part of the research/design process, and provide some reflections on their use. Interaction design methods are not ‘magical pixie powder’ but practical ways to explore the design situation and develop an understanding of its requirements. As such, inventing new methods and tweaking old methods are not uncommon in real-life design situations. However, a range of methods have been recognized as useful and flexible enough to be part of most textbook presentations of the practice. These represent what could be called the designer’s methodological toolbox. Some of them are unique to the field (or at least derived from the constituent fields such as HCI and design) whereas others are borrowed from social studies and humanities. Approaches span from the detail-oriented and empiricist, such as usability engineering, GOMS or keystroke-level modeling, which are methods concerned with the minute interactions between human and machine (See Shneiderman, 1998 for a comprehensive introduction)—to the more high-level approaches that are helpful in dealing with organizational and structural issues, such as ethnography and observation. Depending on the context and nature of the design problem, the practicing interaction designer may need to be both lab technician and anthropologist—or, quite often, something in between.

3.1 Perspectives leading to methods

As mentioned in the introductory chapter, the thesis project focuses on three different perspectives. The first of these perspectives concerns women’s preferences in videogame content. I explore the ‘internal’ qualities of the games themselves—reward and punishment systems, interactional styles, and desires for narrative in videogames. Many of the methods described in this chapter help illuminate these questions, including the survey, interviews, game testing sessions, and the prototype. The second perspective concerns the social context of how women play, or do not play, videogames. The survey, game testing sessions and prototype evaluation provide insight here, although the method that provided the richest data on this matter was the interviews. From November 2008 to June 2009, my co-worker¹ and I interviewed 17 women, some of them in groups and others individually. Finally, the third perspective concerns the gender values of the design situation at large.

¹ See section 1.6 for more on the division of tasks.
This perspective is not included in this presentation of methods, because its ‘method’ is the reflection found towards the end of this thesis.

In order to make it easier to follow the rest of this chapter, I have summed up the methods I use in table 3.1. In this table, ‘perspective’ refers to the two perspectives mentioned above. The values in this column refer to what perspectives each activity sought to illuminate. Values in parentheses mean that the session’s data was used for the given perspective, even though this was not originally intended. As can be seen, this means that the second perspective became a focus between November 2008 and January 2009.

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
<th>Location</th>
<th>Number of participants</th>
<th>Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prototype design and construction</td>
<td>June 2008 to May 2009</td>
<td>London</td>
<td>(2 designers)</td>
<td>1</td>
</tr>
<tr>
<td>First survey</td>
<td>September 20th 2008 and onwards</td>
<td>Web</td>
<td>29</td>
<td>1 (and 2)</td>
</tr>
<tr>
<td>Second (reworked) survey</td>
<td>November 11th 2008 and onwards</td>
<td>Web</td>
<td>141</td>
<td>1 (and 2)</td>
</tr>
<tr>
<td>Group interview (attempt at participatory design)</td>
<td>November 19th 2008</td>
<td>London, Elephant &amp; Castle</td>
<td>4</td>
<td>1 (and 2)</td>
</tr>
<tr>
<td>Group interview, workshop, game testing session</td>
<td>January 8th 2009</td>
<td>Grimstad, Norway</td>
<td>6</td>
<td>1 and 2</td>
</tr>
<tr>
<td>Interview and game testing session</td>
<td>March 27th 2009</td>
<td>London, Sydenham Hill</td>
<td>1</td>
<td>1 and 2</td>
</tr>
<tr>
<td>Web interview</td>
<td>March 31st 2009</td>
<td>London/web</td>
<td>1</td>
<td>1 and 2</td>
</tr>
<tr>
<td>Interview</td>
<td>April 13th 2009</td>
<td>London, Sydenham Hill</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Prototype evaluation and interviews</td>
<td>May 19th and June 4th 2009</td>
<td>London, Southbank University</td>
<td>4</td>
<td>1 and 2</td>
</tr>
</tbody>
</table>

Table 3.1 Overview of research methods

3.2 Qualitative and quantitative research

A common dualism in research is the one between the qualitative and quantitative approaches. Robert Murray Thomas (2003: 1) writes that “qualitative methods involve a researcher describing kinds of characteristics of people and events without comparing events in terms of measurements or amounts.” In qualitative research, descriptions and analyses are most often expressed verbally. David Silverman (2001: 11) lists four major methods used by qualitative researchers: observation, text and document analysis, interviews, and recording/transcribing. Other authors might add ethnography, which is observational studies where the researcher immerses herself in the culture being studied (as
opposed to side-line observation, where the goal is to interfere as little as possible). In my research, the game testing sessions could be regarded as observational studies.

Quantitative methods, on the other hand, “focus attention on measurements and amounts (more or less, larger and smaller, often and seldom, similar and different) of the characteristics displayed by the people and events that the researcher studies” (Thomas, 2003: 1). The primary characteristic of quantitative research is the practice of using such measurements and numbers as basis for statistical inferences and arguments. Silverman (2001: 27) lists five main methods of quantitative research within the social sciences: social surveys, experiments, the use of official statistics, structured observation and content analysis. In my research, I refer to statistics to establish the field but do not conduct my own research with such statistics as a basis.

The qualitative–quantitative dichotomy has in the past been subject to some controversy, whereby researchers on each side of the ‘fence’ have argued that the other side has fundamentally misjudged the nature of science. Proponents of quantitative research have accused their ‘opponents’ of basing their ‘science’ on imprecision and mere ‘common sense,’ whereas the opposing side has painted quantitative research as conservative and narrow-minded, as well as less socially responsible (Thomas, 2003: 6). Today, it is more common to accept both approaches as valid, although their applicability and appropriateness varies with aim and domain. Robert M. Thomas writes that the significant issue “is not whether one method is overall superior to another, but, rather, whether the method a researcher employs can yield convincing answers to the questions that the investigation is intended to settle” (ibid: 7). Silverman supports this, noting that “a balanced view should accept the strengths, as well as the limitations, of quantitative research” (2001: 31).

A possible conclusion could be that when doing qualitative work, the researcher should take extra care to establish the work as reliable, typically by providing a clear description of the data and the interpretation, as well as the researcher’s position and motivations. Similarly, when doing quantitative work, researchers would do well to avoid implying generality and objectivity where there is none. Silverman (2001: 29–30) writes that although the data themselves may be mainly objective and carefully selected, in interpreting them, quantitative researchers can fall prey to just the commonsensical conclusions that their rigorous scientific methods are trying to avoid. A general ideal of transparency of research seems to be implied.

Although my work with the thesis has applied both qualitative and quantitative perspectives to understand the design situation at hand, as a whole my approach has been more qualitative than quantitative.
3.3 **Surveys**

Surveys are collections of questions, usually presented as organized schemes and often limiting the possible answers for most of their questions. They are most commonly used in quantitative research, in order to gather statistically reliable and valid data on some matter, for a given population. Surveys are usually distributed either on paper (to be returned by mail or collection) or online. They are an efficient data-gathering method because the researcher does not have to attend anything while they are being answered—they can be filled out and returned by hundreds or thousands of people in parallel, that is, during the same time period. Because they are efficient, they also facilitate getting the volume of data that is necessary to draw statistical inferences and conclusions.

Surveys also have some disadvantages. The researcher is not able to follow up interesting bits of information with more questions, nor is s/he able to assist if questions are hard to understand or there are other uncertainties on the part of the participant. It may be a challenge to get participants to complete and return them, urging the researcher to provide incentives or encouragement of some form (Thomas, 2003: 69). Finally, surveys are not suited to describe the qualitative features that “make for the uniqueness of each member of the collectivity that the survey is intended to represent” (ibid: 44).

During the thesis project, my co-worker and I have conducted two surveys, where the first one (September 2008) served as a pilot for the second one (November 2008). The aim with conducting surveys was twofold: On the one hand, it was clear that the theory we had gathered at that point provided little data on adult women’s preferences in videogames. Additionally, the surveys informed the design of the prototype, as several questions concerned the appeal of various potential game features and contexts.

The first survey gathered 29 responses, which was considered to be too little. The data from this survey is not included in this thesis. Instead of intensifying our requests for participants, we took this as an opportunity to refine the questions, translate the survey text to English (whereas the original had been in Norwegian only) and re-launch it, this time with a more focused effort towards gathering a substantial number of respondents. The second survey was responded to by 141 participants, of whom 104 were women and 37 were men (See appendix A for details of the questions).

The first survey issued had several open questions, where the user was invited to answer freely (with text). These were marked as optional in an attempt to avoid the impression that the survey would take a long time to finish. The result, however, was that most respondents simply ignored these questions altogether. This was one of several issues that were fixed in the follow-up survey. For both surveys, my co-worker and I tried to create an inviting look, reduced the number of questions and offered concise and exhaustive alternatives for each question. In order to keep the response process quick and enjoyable, most questions asked the participants to give a single or multiple answers from a range of predefined options. These design decisions were a result of concerns to get as many people
as possible to participate—it was assumed that the surveys needed to look inviting to collect a large number of respondents.

Both surveys were created and conducted online, and were advertised on online message boards, as well by asking friends and relatives to participate and spread the word to people they knew.

3.4 Interviews

Interviews are more commonly associated with qualitative research, and involve talking to people in a more natural manner than surveys. Robert Murray Thomas outlines some main variations of interviews: face-to-face interviews, where the researcher or an associate sits down together with the subject, the variation telephone interviews, with or without video, and the written interview, where the subject answers the questions in written form, typically by email (2003: 63). In the case of auditory and face-to-face interviews, several recording options exist. The researcher can take notes while the interview is being conducted, but this can also be accompanied by (or replaced by) audio or video recordings. As the fidelity of the recording technology increases, more data needs to be analyzed and the analysis therefore tends to take longer. However, audio and video recordings may also provide a richer source of analysis, as they help document not only what was said but how it was said, and make it easier to notice aspects such as pauses, intonation and gesticulation.

As for structuring the interview session itself, there are two general approaches: The loose-question approach, where questions are written to encourage long answers and personal accounts from the participant, and the tight-question approach, which is designed to discover respondents’ preferences among a limited number of options, and is as such comparable to a survey (see the previous section). Mixes of the two are also common. The converging-question approach uses general, loose questions followed by one or two more specific ones, with the intent to get the interviewee to relax by catering to her or his ‘comfort zone’ before approaching more difficult or demanding questions on the same subject. The response-guided approach on the other hand involves the researcher following up the prepared questions with natural follow-up questions to explore interesting notions in depth (Thomas, 2003: 64).

For the thesis project, I used interviews as a technique on a number of occasions1. On November 19th 2008, my co-worker and I conducted a group interview with four women in London, UK (six had agreed to participate, although two backed out), with the aim to explore conceptions and preferences of the participants with regard to games, and to deepen our understanding of the survey findings. The middle section of the interview was intended to explore how our vision of the prototype resonated with the informants. The questioning strategy could best be described as response-guided—the interview was an exploratory, curious conversation with some prepared talking points (see appendix B) but no formal structure, thereby somewhat resembling a natural conversation. The

1 The names of all informants have been changed in the thesis presentations to secure anonymity and privacy.
informants were selected by asking women at Southbank University, London. The session audio was recorded and transcribed verbatim.

On January 8th 2009, this was followed up by a group workshop with six women in Grimstad, Norway. Although this workshop consisted of several research activities, a number of group interview-like conversations constituted the main research activity conducted that evening. The topics of these conversations sometimes were responses to issues raised by the various other techniques applied that evening, such as the word association sheet and the game testing sessions (see below), but we also had a prepared list of issues based on the results of the earlier research such as the surveys and the November interview. These informants were selected by inviting a number of friends and colleagues of my mother to participate. My mother is also included in the data material. This session was recorded on video, and the audio was transcribed verbatim.

The third round of interviews was conducted in London on May 19th and June 4th 2009. I interviewed four participants in the age range 21–36 individually about their experience with and relationship to videogames. These interviews, which were conducted in conjunction with the prototype testing and evaluation, were also based on the response-guided approach. A set of predefined issues were to be illuminated (see appendix D), but I was also free to pursue interesting answers in depth. The informants were selected by asking random women in the hallways of Southbank University, London. The audio from these interview sessions was recorded and transcribed verbatim.

The first group interview aimed primarily to provide data on women’s preferences in videogames, thereby informing the ongoing design process. Subsequent interviews aimed for this as well, but placed their primary emphasis on women’s relationship to videogames.

Finally, the thesis will also reference three individual interviews conducted in March and April 2009 in London. Two of these were individual, face-to-face interviews, about 40 minutes and 20 minutes long. These were looser and more conversational in structure, and recorded by taking notes. These two informants were friends. The third interview was conducted via Internet chat and lasted about 30 minutes, disregarding disruptions and digressions. In this case, the digital conversation log provided the record. The informant was an acquaintance made a couple of weeks before. Although these three interviews were less laboriously planned and structured than the sessions described above, I have chosen to include them in the data material because they provided both contrasting positioning strategies to the other interviews, as well as some very pronounced opinions.

3.5 Workshop

A workshop is the practical concept of gathering a group of people together in order to use one or (typically) more methods to explore one or more research or design problems. Alan Dix et al. write
that workshops “may involve mutual enquiry in which both [designer and user] attempt to understand the context of the design from each other’s point of view” (2004: 467). In addition to talking about and discussing the design/research situation(s) at hand, workshops may involve (and combine) a range of other methods, such as role playing, brainstorming and association games. Workshops are the Tapas of interaction design methodology: they can be filled with all kinds of design activities—the main, unifying idea is to gather people to provide a concentrated burst of energy in the exploration of the design problem.

The November 2008 group interview included a design workshop and brainstorming session where my co-worker attempted to involve the women as co-designers, inspired by participatory design (Greenbaum and Kyng, 1991). By asking the four informants to participate directly in making the design decisions for the game, we hoped to find ideas and perspectives that we were unable to see from our own positions as male videogame designers.

A second workshop was conducted in January 2009 with six women in Grimstad. As with the participatory design session mentioned in the previous paragraph, the aim of the Grimstad workshop was to aid the design of the prototype, by gaining insight into the women’s preferences in videogames. However, by the time I conducted this workshop, the social context of how women play (see section 1.3) appeared to be an important perspective to explore. Thus the activities of the evening aimed to produce data that could be used to illuminate both perspectives.

At the start of the workshop, the participants were informed that the evening would be recorded on video, and that the proceedings would only be used for our research. They were also told that the goal of the workshop was to explore the relationship between women and videogames. Questions and verbal reactions were furthermore actively encouraged, and I explained to the participants that no question or reaction would be considered ‘stupid’ or ‘unnecessary.’

3.5.1 WORD ASSOCIATION SHEET

As the first activity in the workshop, I presented a word association sheet. The goal of this exercise was to get an overview of what kinds of predispositions and experiences were common within the group. The exercise was placed first in the workshop agenda in order to have it describe their thoughts on the matter before they were exposed to the significant volume of information about videogames that would be presented later the same evening, that is, in order to better expose potential predispositions and ‘uninformed’ opinions. Each participant was given a sheet with a list of a hundred words, where the words were evenly distributed as one third ‘negative,’ one third ‘positive’ and one third ‘neutral,’ subjectively judged by me and my co-worker (See appendix C for a full list). The participants were then asked to mark the ten words they felt best described ‘videogames.’ The results were counted and subsequently discussed within the group. The participants were given the chance to add words they felt were more fitting than the listed words.
3.5.2 VISUAL STYLE SURVEY

The workshop also included a visual style survey. The goal of this exercise was to investigate the appeal of a range of visual styles commonly used in videogames, to aid the design of the visual profile of our software prototype. We displayed a series of 28 pictures of videogames to the participants and asked them to decide, for each picture, whether or not they found what they saw appealing. Again, the results were counted and some discussion arose spontaneously. The results from this survey will not be presented, as it generated quantitative data with a (too) small data set.

3.5.3 GAME TESTING SESSION

Finally, the workshop included a game testing session where the participants played six different commercial software products. Five of these were typical games in that they provided goals, challenges and rewards, whereas the last one was a more freeform creative tool with game-like qualities. Turns were taken to test each game, and I encouraged participants to have first-hand experience with each title. The games were selected because the design elements they provided were understood as ‘female friendly’ either in the dominating discourse in games writing and/or in the literature on females’ videogame preferences. The central game styles that we wanted to explore were games that:

- Encouraged social interaction between the participants
- Encouraged creativity and creative solutions
- Allowed the player to create her- or himself as an on-screen avatar
- Provided a traditional mystery narrative
- Incorporated everyday concepts such as clothing, mobile phones and family relationships
- Incorporated adventures in fantastical and unrealistic settings
- Demanded physical actions on behalf of the players.
- Finally, we included a car driving game as an example of a game style traditionally more associated with male play.

The game testing session had two core aspects from a research perspective: It allowed us to observe how the women negotiated and appropriated the games, and it gave them first-hand experience with a number of concepts common in videogames. This experience was used as a basis for discussing and reflecting upon the concepts displayed by the games.

3.6 Prototyping

The focal point of the first perspective that was applied to the research question was the software prototype—the ‘game for women’ as a practical exercise. Jennifer Preece et al. (2002: 262) write that the purpose of prototyping is just this, to “allow some evaluation of the emerging ideas to take place.” As such, prototyping could be understood as a “reflective conversation with materials” (Schön and
Bennett, 1996: 176). Through working with the problem area in a practical manner (as opposed to ‘only’ theorizing), I hoped to gain a deeper understanding of it.

Preece et al. (2002: 243–246) outline how one could classify prototypes as having a certain fidelity. *Low-fidelity prototypes* typically share few outer traits with the envisioned finished product and are often made out of simple materials, but they are quick to create and easy to criticize. *High-fidelity prototypes* give a more realistic approximation of the envisioned final artifact, by utilizing similar materials and replicating more of its form and function. They are however more expensive and time-consuming to develop, and by virtue of looking rather ‘finished,’ they may hinder a high volume of responses and criticism. Generally, low-fidelity prototypes help keep the evaluations and discussions broad and general, while high-fidelity prototypes tend to be more useful later in the design process, when the broad issues have been solved and a more feature complete approximation is in order.

For the thesis project, my co-worker and I used low-fidelity prototypes internally, such as sketches and paper-based, while the only result that was explicitly brought in front of potential users was the final game software product—a high-fidelity prototype. I will reflect on this choice in chapter 7.

3.6.1 TESTING AND EVALUATION

On May 19th and June 4th 2009, the final prototype was presented to four women at Southbank University, London. The test participants were selected by asking students and employees at random. The primary aim of the testing sessions was to evaluate how women would react to and reflect upon the qualities of the prototype. The secondary aim of the sessions was to provide interview and observational data for the analysis of the context of use/play. This secondary aim was supported by conducting general interviews after the prototype testing, as described in section 3.4.1.

Each session consisted of 15–20 minutes of play, followed by 20–30 minutes of interview. Notes were taken during the prototype testing and audio was recorded in order to assist recollection. The interviews were recorded and transcribed.

For these prototype testing sessions, the women were not informed about the gender aspect of the research project. The reason why I chose not to do so was that I did not want to initiate a suspicion with the informants that the game might be a ‘game for girls’ or a ‘game for women.’ Instead, I wanted to allow the women themselves to define and describe what they saw in it. However, the informants were informed that the purpose was to ‘test a game,’ and through the interviews, they were given a good overview of the kinds of data that were collected. They were also allowed to withdraw from participation at any given moment.
3.7 **Analysis**

Much of the analysis I present in this thesis is based on transcripts and field notes from the various sessions that have been conducted. The game testing session and the three major interview sessions (November, January and May/June) were recorded with audio and video. David Silverman points out that such recordings have the advantages that they “can be replayed, and transcripts improved” and that they “preserve sequences of talk” (2001: 162), thus allowing both the original researcher to re-investigate a sequence, and subsequent analyses to not be restricted by the original analysis. However, audio tapes are not ‘complete,’ and may conceal aspects such as facial expressions or other people in the room—although as Silverman points out (ibid), no recording or transcript can be totally ‘complete’.

For the January workshop, video was used as the recording medium. By providing data on gestures and facial expressions, video may facilitate a more thorough analysis than audio tapes. When using audio and video, the researcher needs to be especially careful with ethical considerations concerning the informants, as privacy can be compromised by an oversight if the material is made available. This is especially true of video, where informants tend to be more easily identifiable.

All in all, the recorded data amounted to around 9 hours of material. After transcribing these and sorting them according to informant name and session date, the data was analyzed in two steps. The first step involved reading through the material several times in order to obtain a general overview of what was said. I then organized the data under a series of headings, such as:

- How often the informants said they tended to play
- How long their play sessions tended to be
- The experience they claimed to have with videogames, and the kinds of games they had tried and/or liked
- Mentions of gender as related to technology and/or videogames
- Mentions of social and other contexts of use/play
- Notable utterances that concerned specific arguments about, or views on, videogames (and thus, often positioning strategies)

In other words, this aggregation included both statements of ‘facts’ and statements of opinions and reflections. The overview that was achieved through these aggregations made it easier to give confident assertions of the tendencies I found with my informants —what was common and what was less common. It also made it easier to control that my analysis and presentation covered the notable positioning strategies and arguments that were part of the data material. However, in order to allow old statements (that perhaps had been seen as less important) to be looked upon anew, I also continued to read through the raw transcripts regularly throughout the analytical process.
The aggregation of the numerical data from the survey was handled automatically by a PHP script written for that purpose. Before launching the survey, it was controlled both by me and by a tester not involved with the project that the correct values were recorded by the system. Participants were logged with IP and timestamps in order to avoid attacks and web robots. This log was controlled manually for duplicate entries and other signs of malfunction or abuse.

3.8 Reflections on methods

Whenever a method is used in research, the question of its applicability is raised—if not explicitly by the researcher, then implicitly through the credibility of the results and analysis. In the following, I try to illuminate my experience with the methods I have used during the course of the research project.

Generally, the question of which methods to apply is not only a theoretical one, based on what might be ideal to answer the research question—it is also a practical matter. For instance, in the studying of how women relate to videogames one might assume that an observational study, for example by videotaping a couple of weeks use of the ‘play spaces’ in a home, such as the computer or the living room console, might provide good data on how the women and men in the house made use of or did not make use videogames. The reason I did not use this method was hence not because it could not provide good data, but because it would require substantially more practical work, both in setup and in analysis, than the interviews that were used to produce a similar kind of data.

My methodological approach was also influenced by the fact that it was a cooperative effort where my co-worker and I had somewhat different aspirations. Löwgren and Stolterman outline how contradictory forces in a design situation create a “field of tension within which the designer has to navigate” (2004: 53), and this was true for our design situation as well on several levels. For instance, it influenced the way we conducted both the surveys and the first group interview. Whereas my primary task was to conduct research, Erlend’s primary task was to produce a game design and a software artifact. Because of this focus on the artifact and the initial vision that it would be a game about interior design (see chapter 4), some of the survey questions were less relevant to the concerns of this thesis than they could have been (see appendix A), thus limiting the usefulness of the data.

The design of the survey process itself is also worth problematizing. Within statistics, it is common to differentiate statistical analysis as either descriptive, that is, concerned with what was observed/registered, or inferential, that is, concerned with inferring conclusions from the sample to some larger population (Frankfort-Nachmias and Leon-Guerrero, 2005: 17). For inferential statistics, collection of a random sample of the population of study is required. As Jennifer Preece et al. note (2002: 405), a big problem with web-based surveys is obtaining such a random sample of respondents. Since the respondents in my survey were enrolled by asking friends, family and by advertising it on online message boards, my sample was not random, and the results can therefore
not simply be assumed to be inferable to women and men in general. Descriptive statistics have their place in interaction design, particularly in situations with smaller sets of users, but also to provide general insight. As such, I have chosen to include the survey not only because it informed the design process, but because it informed the research process on a higher level and led me to reassess the research question.

According to Jennifer Preece et al. (2002: 396) the benefit of a group interview is that it “allows diverse or sensitive issues to be raised that would otherwise be missed.” It is assumed that people will be more able to put their feelings and thoughts forward in a supportive environment, in that they no longer have to direct all their attention and nervousness towards the interviewer. This notion was clearly supported by our experiences with the form, in that the participants seemed to be enjoying themselves and feel relatively relaxed in the situations. Preece et al. (ibid: 213) also point out that group interviews are good at clarifying if there are consensus views, as well as highlighting areas of conflict and disagreements between participants. Group interviews are however vulnerable to dominating individuals, especially if these have a higher social standing or organizational rank (ibid).

In our London group interview, this seemed to be the case in that the younger pair of women tended to talk less than the older pair of women once all four had arrived. They did however speak comfortably while alone with Erlend.

In the Grimstad group interview there were also signs of such social control mechanisms. One informant apologized for being negative about games, perhaps assuming that the others (or me as a researcher and game enthusiast) were less conservative about or critical towards videogames, and/or that I expected a positive tone. I tried to counteract this by making clear that no questions or opinions would be considered ‘stupid’ or ‘negative,’ and the informant in question did proceed to describe videogames in negative terms numerous times, which could be understood as a sign of comfort.

The recording of video and audio may itself affect the data that is being recorded, if the informants or subjects know that they are being recorded. In order to reduce the amount of self-policing behavior, I was therefore clear to point out during the sessions that the data would only be used by me and my co-worker. The way such data affects the research situation was nevertheless cast into light when one of our informants at one point stopped what she was saying in order to ask whether she was being filmed. She had arrived late and had therefore not been part of my explanation. Generally, my impression was that the camera did not bother the informants much and that they got used to its presence.

As noted above, a game testing session was part of the workshop in January 2009. The rough idea for using this method was to observe how the women behaved with the various play situations, both in response to the game itself (its structure, rewards, controls, challenges and so forth) and to the external situation of being an adult woman in control of a game. This was also the basis for the prototype testing sessions that were conducted in May and June 2009, although since only one game
(the prototype) was tested, the data from these sessions was a less rich source for the general analysis and more applicable for criticizing the specific game product we had constructed.

Testing sessions raise a problem—how do you analyze the data? In the process of describing (summarizing) what is seen and heard, the observing researcher cannot avoid imposing her or his own theoretical structure on the data (Silverman, 2001: 65). Analyzing observational data is to look for structure and commonality, but the researcher can only look for structure that s/he recognizes—which is where her or his theoretical understanding(s) of the world colors the analysis. My analysis of these sessions is however only concerned with relatively broad, high-level issues such as whether the informants expressed interest, frustration and joy, and should therefore be fairly uncontroversial.
4 FROM VISION TO PROTOTYPE

In this chapter, I describe how my co-worker and I developed a first vision of a ‘game for women’ based on ‘feminine’ videogame elements, and relate the design decisions to the research they were based on. I will then outline how such female patterns were made particular in our software prototype, and contextualize our design process as part vision, part operative image, part specification and part construction. A description of the ‘final’ prototype concludes the chapter.

4.1 A model of the design process

Jonas Löwgren and Erik Stolterman (2004: 17) write about the design process that it could be understood as three abstraction levels that all influence each other in a dialectic process: the vision, the operative image, and the specification. These three categories do not really ‘exist’—they are conceptual tools that help the designer make sense of a process that might otherwise seem chaotic.

![Diagram of vision, operative image, and specification](figure from Löwgren and Stolterman, 2004: 17)

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1 See section 1.6 for more on the division of tasks.
The *vision* can be as sketchy as a ‘feeling’ or a ‘mood.’ According to Löwgren and Stolterman, a vision should be thought of as “a first organizing principle that helps the designer to structure the initial attempts to respond to the situation at hand” (ibid: 18). This vision originates with the designer. It can be a concept, such as ‘a videogame tailored to women,’ or it can be an image on one’s inner eye, an idea for a solution that is not properly formulated, but which has an essence the designer is aware of and can reproduce mentally. Löwgren and Stolterman point out that the vision does not have to be a conscious or deliberate decision, and that if the design situation reminds the designer of something similar s/he has encountered before, the first vision might even be almost an instinctive reaction (ibid: 18).

The *operative image* represents an operationalization of the vision. It is externalized from its originator’s head—which means that it needs communicated in some way, typically by sketches and conversation, so that it can be manipulated and worked with more easily, and so that its developmental history is retained for reflection. By working with a concept over time, sometimes old ideas find new meaning in the context provided by other, newer ideas that have been developed. Finally, as the operative image has become sufficiently detailed and stable, the person formally responsible for the design process “makes a decision that it will function as a *specification* of the final design” (ibid: 20). The specification thus involves a level of detail that allows construction to commence.

The central tenet of Löwgren and Stolterman’s model is that the designer is “recurrently leaping between the details and the whole, or between the concrete and the abstract” (ibid: 16). Design processes are never clean, chronological processions from A to B. They are inherently messy, as each abstraction level continuously influences the others. The practical design work is about *producing knowledge*—by *doing*, the designer learns more about what can and cannot be done (ibid: 95–96). Because of this continuous learning process, it may be discovered that the vision needs adjustment, or that the operative image is unrealistic. As such, the good design process could also be said to be about allowing this interplay to happen—allowing the discoveries not only to be made, but to be acted upon.

### 4.2 Vision: ‘a game for women’

In the case of the design project that was conducted as part of the thesis project, the originator of the first vision was my co-worker, Erlend. By talking to a number of young female supermarket co-workers in 2007, he got the impression that they “did not consider videogames as a valid activity.” According to his recollection, they expressed that games were “an activity for kids, something their little brothers did, and something the less ‘cool’ guys of the local society spent their time with.” This led my co-worker to set himself a challenge: To design a game that would be of interest to these women.
Although the reasons these female co-workers gave for not playing games were worded in social terms, Erlend’s reaction at the time was to hypothesize that there was something wrong with the fundamental building blocks of the games themselves, as well as their themes. From this, the first vision of Décor was born: a videogame made for women, that would explore how changing these ‘building blocks’ and challenging the existing videogame design paradigms might help in garnering more interest from women. Through talks and discussions with Erlend, I initially came to share this vision of the problem with him. The early project work was therefore concerned with discovering the ‘secret ingredient’ that would enable us to make games delicious for women as well—in other words: Which videogame design tradition was the ‘culprit’? As I will discuss later, this understanding may have been misguided.

Even though this could be said to be the first vision of the problem, as designers with considerable experience both with games and with the gendered connotations in society, a lot of assumptions were “instinctively” (Löwgren and Stolterman, 2004: 18) coloring our first visions of solutions before the explicit design process had even begun. We had preconceptions about what such “a game for women” should look like and what kinds of features it could provide to appeal to women, even though we were not as much consciously aware of them—I might have described these ideas as ‘intuition.’ Löwgren and Stolterman (ibid: 54–57) explain that although design intuition is a crucial ability for designers, trusting the “right feeling” does not mean blindly following whatever “feels right.” Developing a sense of design judgment involves reflecting on one’s own skills—perhaps this entire thesis could be understood as such a reflection.

4.3 The first operative image

According to Löwgren and Stolterman (2004: 19), the operative image appears when a vision is given shape and form through consecutive talks, writings and low-level prototypes such as drawings and schemes. As such, our first took form through informal discussions and sketches, months before we sat down to properly ‘start’ the process.

A very early idea stated that the game should be about interior design. The core characteristics of such a game were planned to be as follows:

- The game’s target audience would be adult women
- The player would be tasked with creating interior design solutions for various clients
- To create the interiors, the player would use a game interface to place, rotate, color and stylize the various pieces of furniture and décor
- The player would make herself a career as an interior designer
- The game should judge and give feedback on the player’s use of color, furniture and lighting.
The basic concept that was envisioned resembled the genre called management games, or sometimes simulation games. The classical template around which such games tend to be built is a rags-to-riches story of some (sometimes exotic) managerial occupation. For instance, in Transport Tycoon, the player is director for a transport company and in Theme Park the player takes on the role of theme park manager. The typical goal in such games is to handle the day-to-day activities and business in such a way that more money is made and so that the player can advance to tasks with more responsibility.

However, even in the earliest months of the project, from June 2008 and onwards, a host of more advanced features were discussed as well:

- Game interfaces should be ‘natural’ and ‘familiar,’ based on well-known metaphors such as a web browser or e-mail program to make them easy to learn
- The in-game clients that the player works for should act convincingly ‘real,’ brought to life through descriptions and dialogs.
- The in-game, interior design clients should give feedback on how well the player had done by walking through the finished apartment or house and commenting on the choices of furniture, colors and materials
- The game should be developed on iPhone, allowing use of tilt control, multitouch control, and photography
- The game should have a web-based component (say, a Facebook application), thus allowing people to spread the word and play together more easily
- For advanced players, Feng Shui energy streams should provide challenge, adding a spiritual interior philosophy to the experience.

The three last entries in this list were discarded because of technical or time-related issues—for instance, my lack of technical experience with the iPhone made development on the PC the easier option. Moreover, the third entry was modified somewhat, by removing the requirement for the player’s in-game client to walk around inside the 3D world. Apart from this, most of our early ideas remained part of the operative image throughout the design process.

4.4 ‘Feminine’ game design as the ‘non-masculine’

Expanding upon our early ideas, concepts of ‘feminine’ play patterns were explored by reading literature on girls’ and women’s preferences in games and behavior with computers. Depending on the perspectives a reader brings to the reading of a text, different aspects of the text may become visible or hidden. Since our reading of the literature cited in this section was based on a need to ‘find difference,’ this presentation will not necessarily be representative for the entirety or even general views of the referenced works. Furthermore, as has been previously pointed out by T. L. Taylor (2006: 99), research on girls and videogames has often been “extrapolated to apply to women”—an
extrapolation that is not inherently valid, especially given the varying life situations (single, married, elderly etc.) and self-understandings that follow with age. This will be further discussed in chapter 6.

However, in order to give an accurate overview of the way gender differences were sought after and interpreted in the initial phases of the design process, I will for the rest of this section allow a somewhat single-minded presentation, and avoid questioning the underlying assumptions.

4.4.1 WAYS OF COPING WITH TECHNOLOGY

In section 2.3, I mentioned Sherry Turkle’s widely cited study (2005, orig. 1984) of children’s interactions with the programming language Logo, in which she claims marked gender differences (ibid: 105). The boys tended to be “hard masters,” imposing their will upon the computer “through the implementation of a plan.” The girls, on the other hand, tended to be “soft masters,” negotiating and “tinkering” with the computers. She writes:

At Austen, girls are trying to forge relationships with the computer that bypass objectivity altogether. They tend to see computational objects as sensuous and tactile and relate to the computer’s formal system not as a set of unforgiving “rules,” but as a language for communicating with, negotiating with, a behaving, psychological entity. (ibid: 105)

Instead of manipulating the computer’s set of abstract rules, soft masters behave as if the computer is a person. Similarly, in a study where women and men were interviewed about their relationship to videogames, Simeon J. Yates and Karen Littleton found that their informants differed in the way they spoke about videogames they would like to play: The men spent a considerable amount of time “discussing specific structural details of the games,” whereas the women did not (2001: 114). Cornelia Brunner et al. (1998: 76) summarize their studies on the gendered fantasies of technology that women see technology as “expressive,” whereas men see it as “instrumental.”

4.4.2 CONFLICT RESOLUTION AND COMPETITION

Game designer Sheri Graner Ray argues that a similar difference can be found in the way men and women treat conflict. She writes that when faced with a threat, “the male reaction is to approach the problem as a direct confrontation with a decisive win-or-lose result” (2004: 43). On the other hand, she writes that women, faced with a conflict, will choose “negotiation, diplomacy, and compromise over direct confrontation” (ibid). Cornelia Brunner et al. argue that women and girls tend to value persuasion: “Persuasion is a more complex act than conquering […] the interaction is much more nuanced” (1998: 83). Director of online development at Girl Games, Heather Kelley, emphasized that their products were noncompetitive, based on social interaction rather than aggression, cooperation rather than competition (Kelley, 1998: 59).

However, this should not be taken to mean that women do not like competition, according to Graner Ray: “Females can be every bit as fiercely competitive as males.” However, there’s a
difference in the kinds of completions that are preferred—competition that is popular with women is “usually either team oriented or it is indirect” (2004: 45). Cecilia M. Gorriz and Claudia Medina note that girls would rather work together than try to “outdo someone else” (2000: 45). Tilo Hartmann and Cristoph Klimmt point out that the non-competitive task structure of games such as *The Sims* and *Myst* may be one of the reasons for their larger than usual female fanbases (2006).

4.4.3 VIOLENCE AND FAILURE STATES

Graner Ray’s notion of women choosing negotiation over direct conflict is related to the appeal of violence. Kaveri Subrahmanayam and Patricia M. Greenfield write that “compared to girls’ play, boys’ play more often includes activities such as play wrestling, war games, and fantasy aggression. According to the same authors, girls tend to find the violent content of computer games “boring” (1998: 51). In the same vein, in a study Yasmin Kafai conducted (1996) where children were asked to create educational games to teach fractions, the boys’ games for the most part used violent feedback when the player got the answer wrong, whereas the girls mostly opted for non-violent feedback. Research on violence across media has also indicated that men are more interested in violent entertainment than women (Slater, 2003).

In Kafai’s study (1996), the punishment for failure with the boys’ games was similarly violent in that it was ‘game over’ when the player answered wrong, and that the player would hence have to start over from the beginning. As a contrast, 7 out of 8 of the girls’ games gave less profound punishment. In the research conducted at the feminist game studio Purple Moon, one of the conclusions about girls and computers was that “girls were much more likely than boys to blame themselves rather than the machine when things went wrong” (Laurel, 2008: 29).

4.4.4 STORY AND CHARACTERS

Narrative is also often cited as an important factor in attracting women and girls. Sheri Graner Ray notes that games that have an emphasis on story, such as the *Gabriel Knight* series and the *Myst* series, have traditionally had “a higher percentage of female players than the market average” (2004: 54). She suggests that in order for games to provide emotional value for the (female) player, they should present the player with “scenarios that provide ‘mutually beneficial solutions’ to socially significant solutions” (ibid: 56). In short, Graner Ray asks for narrative context to the game situations—the player should have a reason for wanting to defeat the evil forces, such as wanting to save her or his family.

Brenda Laurel found similar results, pointing out that the game industry had missed the tremendous attraction that “complex characters and narratives and materials for narrative construction” represented for girls. She said, “It’s not only that the characters are lame in most boys’ games, it’s that they’re so lame you can’t even make up an interesting story about them” (Laurel, 1998: 122). She explains that the girls in Purple Moon’s story showed overwhelmingly more fondness when the
activity featured more than one character. Moreover, an ‘adventure’ to the informants was not seen to mean ‘overcoming an obstacle’ but ‘figuring out the right thing to do’ (ibid: 123).

### 4.4.5 INTEGRATING ‘FEMININE’ GAME DESIGN WITH THE OPERATIVE IMAGE

Together with a series of other observations about genres ‘popular with women’ and cultural assumptions, the ‘feminine’ game design elements described in the previous subsections were subsequently molded into something operational, in order to become part of the operative image. In short, our game design would attempt to be the ‘anti-game,’ or at least, the opposite of what we hypothesized was a masculine, hegemonic culture of game design that did not take women’s preferences into the equation. In table 4.1 these ‘masculine’ and ‘feminine’ elements are summarized. These understandings laid the premise for the subsequent design process, hence the final prototype ended up to some extent exemplifying every ‘feminine’ game design element listed.

<table>
<thead>
<tr>
<th>'Traditional' / 'Masculine' game design elements</th>
<th>'Feminine' game design elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Mastery</td>
<td>'Hard mastery', impose will on machine, follow plan, technology seen as 'instrumental'</td>
</tr>
<tr>
<td></td>
<td>'Soft mastery', 'tinkering,' 'negotiation,' treating machine like a person, technology seen as 'expressive'</td>
</tr>
<tr>
<td><strong>2</strong> Feedback</td>
<td>Explicit scores (alphabetical, numerical), violent, 'game over'</td>
</tr>
<tr>
<td></td>
<td>'Fuzzy', verbal, nonviolent, lesser setbacks</td>
</tr>
<tr>
<td><strong>3</strong> Competition</td>
<td>Direct competition</td>
</tr>
<tr>
<td></td>
<td>Indirect competition, or collaboration</td>
</tr>
<tr>
<td><strong>4</strong> Narrative and conflict</td>
<td>Not important. If present, good versus evil, stereotypical male hero myth</td>
</tr>
<tr>
<td></td>
<td>Important. Complex characters, social conflict, no clear 'right' answer, 'figuring out the right thing to do'</td>
</tr>
<tr>
<td><strong>5</strong> Context</td>
<td>Fantasy</td>
</tr>
<tr>
<td></td>
<td>Realism</td>
</tr>
<tr>
<td><strong>6</strong> Ease of use</td>
<td>Discovery of 'hidden' mechanics through trial and error, complex controls</td>
</tr>
<tr>
<td></td>
<td>Game rules explained in a tidy and friendly manner, easy to learn, simple controls</td>
</tr>
<tr>
<td><strong>7</strong> Challenge style</td>
<td>Spatial, reaction-based</td>
</tr>
<tr>
<td></td>
<td>Organizational, creative</td>
</tr>
<tr>
<td><strong>8</strong> Interface style</td>
<td>Angular and functional</td>
</tr>
<tr>
<td></td>
<td>Organic and based on metaphors</td>
</tr>
<tr>
<td><strong>9</strong> Metaphors and culture</td>
<td>'Masculine' signifiers such as weapons and science fiction gadgets</td>
</tr>
<tr>
<td></td>
<td>'Feminine' signifiers such as interior decoration, scrapbooks, magazines, soap opera, pretty typography</td>
</tr>
<tr>
<td><strong>10</strong> Women’s role</td>
<td>Women, if present, are objects of desire</td>
</tr>
<tr>
<td></td>
<td>Women active and in charge of the narrative</td>
</tr>
<tr>
<td><strong>11</strong> 3D camera control</td>
<td>Manual control</td>
</tr>
<tr>
<td></td>
<td>Fixed perspective (scrolling and zooming allowed)</td>
</tr>
</tbody>
</table>

*Table 4.1, 'feminine' game patterns as a subversion of traditional patterns, assumed to be 'masculine'*
4.5 *Iteration through sketching*

A central characteristic of the design process was the way it always seemed that several processes were in motion simultaneously. During the same time period that we designed and conducted the first survey, I experimented with several prototyping environments in order to decide on a technical platform, and the *operative image* was in a constant state of flux, being iterated upon and experimented with through sketching and conversations.

Considerable attention was paid to areas such as camera solutions and the interface for dragging and dropping furniture, leading to simple software prototypes exploring our ideas for solutions. The qualities of primary and ubiquitous elements such as camera movement and drag-and-drop can be essential to the emotional aspects of interactive experiences (Norman, 2004), which was why it was considered important. In a similar manner, however, a range of aspects of the game were iterated upon, in particular through *sketching*, which is a form of low-level prototyping that helps discussion on design decisions by aligning the (internal) visions of each designer.

On the next three pages, I have included images that show three of the iterative, experimental design processes of various game elements. In the first sequence, a functional question is explored in sketches and through software prototype (fig. 4.2–4.4).
Fig. 4.2 First sketch of behavior in the case of furniture collisions

Fig. 4.3 Higher-level sketch of behavior in the case of furniture collisions

Fig. 4.4 Software prototype of behavior in the case of furniture collisions
The second sequence show how decisions of visual styles and characters also are part of the game design process (fig. 4.5–4.7). The facial expressions were an attempt to increase the emotional investment in the characters.

Fig. 4.5 Sketches of the main character, first iteration

Fig. 4.6 Sketches of the main character, second iteration

Fig. 4.7 Emotions of the main character
In the third sequence, the interface solution for buying and placing furniture goes through several transformations. This was based on the idea that intuitive, feminine metaphors, such as scrapbooks, would make it easier to understand the game logic. The re-imagining of this interface, as shown in figure 4.9, was an effect of the time investment that would be needed to get the sketch in figure 4.8 to ‘feel’ like it looks.

![Early sketch and more finished sketch of the scrapbook interface for buying and placing furniture](image1)

**Fig. 4.8 Early sketch and more finished sketch of the scrapbook interface for buying and placing furniture**

![Re-imagined scrapbook that fits the technical limitations](image2)

**Fig. 4.9 Re-imagined scrapbook that fits the technical limitations**

### 4.6 Specification and construction

The third aspect of the design process, the specification, could be seen as the second transformation of the designed concept: Whereas a vision could be said to be re-sculptured into an operative image the moment it needs to be externalized from the originator’s head, discussed, and reflected upon, the operative image and the specification are closely connected—the main theoretical difference between the concepts being that the specification should be sufficiently detailed to be used as a basis for the final design (Löwgren and Stolterman, 2004: 20). However, the typical design process does not follow a strict order in which each part is cleanly ‘finished’ before the attention is turned to the
next one—from the vision to the operative image, and from the operative image to the final specification. Rather, the designer tends to move back and forth between each perspective as new insight is gathered. For instance, discoveries made in the specification could mean that the vision needs to be overhauled because it’s unrealistic when looked at in depth.

This same kind of back-and-forth is also evident if we step up one level, whereby a design project could be seen as two interrelated halves. The first half concerns design as a whole (that is, the vision, the operative image and the specification) and the second construction. Although the design aspect is largely conceptual (i.e., what should we create) and the construction aspect is largely practical (i.e., how should we create it?), as before, the two are inextricably connected: weak design can have grave implications for efficiency or even possibility of construction, construction can reveal weaknesses in the concept, and bad construction may even let down an otherwise good design. As such, construction, which sounds like a straightforward matter, is very much part of the design process itself.

Generally, modern videogames are complex software products. A videogame usually consists of a number of subsystems working in conjunction with each other, such as graphics systems, scene graphing, collision detection, input event handling, sound, and game logic. Each of these needs to be implemented—that is, planned, modeled and programmed—in some way. Because many problems are common to videogames generally and not specific to one title, middleware solutions such as game engines and prototyping environments are popular options to reduce workload (Harbour and Smith, 2006; Maurina, 2006). Such solutions provide a number of basic functionalities that are typically needed in games, such as scene graphing, optimized rendering, visual effects, text tools and 3D object loading, thus often saving time needed for construction. When making a decision of the specific technology to use, however, the time used for researching the alternatives are of course time lost, and even though solutions are researched, the consequences of the choice may not be apparent until later. As such, decisions on technological platforms are often complex judgments.

Generally, our choice of middleware, the game engine jMonkeyEngine, worked well. Even so, the technical aspect of the design and construction process had great influence over the final result, due to the sheer volume of technical tasks involved. An apartment model had to be created and imported, drag-and-drop of furniture needed to work in 3D, a working GUI system that allowed the user to click on textured buttons, a coloring subsystem that would generate color combinations automatically, and an animation system that would allow the story to play out in a convincing and engaging manner, and so on.

Thus the technical construction itself was exhausting. To me as a designer, it proved hard to focus on both design and production at the same time. As an interaction designer, both before and after the construction periods, my primary concerns tended to be high-level: How should the game logic and interface be organized for the user? What interface metaphors should be used? How could different interactional styles create different senses of fun? Whenever I put my mind to the actual
implementation, though, what I saw shifted dramatically. Now, my primary concerns were mid-to-
low-level: Which features would be the easiest to implement? How could I translate a 2D mouse
position on the screen to a 3D selection in the virtual world? In short, I experienced a kind of ‘tunnel
vision,’ in that every time I concerned myself for a while with technical issues, the more overarching,
and perhaps more important ones became harder to see. The resulting prototype ended up
representing the absolute crucial ideas—everything else was postponed. In this manner, my
technical experience was a central force in the field of tension (Löwgren and Stolterman, 2004: 53)
that was the design situation.

This domination of technical matters can be witnessed by comparing the visual prototype in figure
4.10 with the actual, ‘final’ software prototype in figure 4.12. The visual prototype was what we
wanted the game to look like. However, the technical challenges of construction necessitated new
design solutions in order for the prototype to be finished on schedule.

![Image of visual and final prototypes]

**Fig. 4.10 'Complete' visual prototype of the game interface, dialog system, look and feel**

### 4.7 The ‘final’ prototype

For most intents and purposes, the final prototype\(^1\) resembled a direct implementation of all the
‘feminine’ play patterns listed in table 4.1. The situation and challenge of the game is presented as

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\(^1\) The prototype requires that the computer has 32-bit Java installed. It can be run from here:
http://heim.ifi.uio.no/kwinnhol/decor/web
social, in that the game begins with the player being approached by two women named Kate and Isabel at a café. Kate and Isabel start chatting with each other, and occasionally address the player. In this way, the scenario of the game is introduced as a socially contextualized problem: Kate needs help decorating her new photography studio. Although the player is never mentioned by name, it is communicated through the dialog that her or his role is that of an interior designer.

On regular intervals through the dialog, the player is given the opportunity to react to and answer Kate’s and Isabel’s suggestions and thereby partake in the conversation. The choices are always simple: The player can either be ‘positive’ (green button) or ‘negative’ (red button) to what was said. The aim with this design solution was to give the player a sense of influence over the drama. This solution was implemented as a traditional choose-your-own-adventure branching scheme (Egenfeldt-Nielsen et al., 2008: 181), meaning that each player choice simply leads down one of two paths. Since the prototype was only meant to be used once per tester, the illusion that was provided of social agency was still considered sufficient.

After the introductory sequence, the player is shown a quick location shot outside the factory-like place that will be used as a studio before being taken inside. Here, Kate and Isabel brief the player on the various controls that are displayed on-screen and how to use them.

The game interface is presented as skewed, natural-media books and tabs, positioned at an angle and given several visual flourishes to make them look more ‘organic.’ In order to select colors, the user

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1 Interactive storytelling is a complex research topic on its own. Chris Crawford (2004) and Michael Mateas and Andrew Stern (2003, 2007) provide interesting starting points.
will click on the sketchpad in the lower right of the screen. The color system asks the player to choose a ‘base color.’ Based on this base color, the system generates a series of color schemes. The generation of these color schemes adheres to real color theory and the schemes are labeled accordingly, with terms such as ‘monochrome,’ ‘complimentary’ and ‘cross-complimentary.’

Similarly, the various pieces of furniture the player is asked to place are found in a ‘furniture folder’ at the top of the screen. By clicking on ‘tabs’ sticking out of this folder, the player can see her or his options. The furniture is placed into the room by drag-and-drop. Each furniture tab represents a particular furniture style, such as baroque furniture, minimalist furniture and photo studio equipment. In this manner, the game relates to real-world furniture theory. In these ways, notion 5 in table 4.1—‘realism’—is established in the game.

As the player starts placing furniture, given some combinations of furniture or some of the more eccentric pieces available, Kate and Isabel will interfere by commenting on choices and the direction they feel the work is heading. Here, no points or clear scoring schemes are used—all the player gets is verbal, social feedback. In this manner, notion 1 and 2 in table 4.1 are part of the design—it is a design that is catered to ‘soft mastery’ because the player will be allowed to experiment and have her or his choices commented upon if there is something wrong, instead of ‘dying’ or having a ‘game over’ screen.

Throughout the dialog, it becomes clear that Kate and Isabel do not want the same style to be used, and that Kate is more interested in modernity and ‘reinventing herself’ whereas Isabel is highly critical of the urgency by which this reinvention became necessary after Kate left her husband. As
such, a small-scale drama is introduced to the player where it becomes evident that Kate is in a situation where she has to make a choice about who she wants to become. This choice is open to the player to influence, thus the player is given the opportunity to decide ‘the right thing to do’ (Laurel, 1998: 122). The narrative system and contextualization of the prototype is as such an implementation of ‘feminine’ game element 4 in table 4.1.

The camera is controlled in a simple manner, allowing the player to scroll about the field by moving the mouse to the left, right, top and bottom of the screen. The player can also zoom in and out by scrolling the mouse wheel. The camera angle is fixed. Furniture is placed by dragging and dropping, and rotated by dragging a rotation circle that circumvents the selected piece.

After 10 minutes, the first stage ends, which takes the player through some more story exposition before being introduced to Byron, the curator who has convinced Kate to start anew and reinvent herself. A new opportunity is given for the player to adjust the interior s/he has created according to feedback from this male style guru. After making some more adjustments, all three characters intervene and a final scene plays out, according to which of the characters the player has chosen to listen to, as they all wanted slightly different things.

In this chapter, I have described how the design process can be understood as three interrelated abstraction levels: the vision, the operative image and the specification. I have described how our own design process was envisioned and how an operative image based on ideas about ‘feminine’ game elements was constructed. I have also presented the final product, a software game prototype with a user interface based on ‘creative’ metaphors, a simple interactive story and some interior design tasks the player is asked to do. In the next chapter, I will present the data that was collected in order to form a better understanding about both preferences and context(s) of use.
5 ‘WOMANLY’ WAYS OF PLAYING: PREFERENCES AND (SOCIAL) CONTEXTS

This chapter presents the empirical findings of my study. I open the chapter by discussing the findings of the survey that was conducted early in the project. I continue by discussing interview findings in section 5.2, the findings of the game testing sessions in section 5.3 and finally the evaluation of the software prototype in section 5.4.

5.1 ‘Preferences’ in videogames: survey findings

In this section, I present findings from the web survey that was conducted from November 2008 and onwards, including data entered up to and including April 2009. The survey was answered by 104 women and 37 men, meaning that among the in total 141 participants, roughly 74% were women. By age, the participants were distributed as such:

![Fig. 5.1 Number of participants, by age](image)

- Women
- Men
Almost all our participants (139 out of 141) were under the age of 50. In the 40–49 group, we had 20 women but only one man, whereas percent-wise, we had more men in the 20–29 bracket (54% of the men belonged to this age group whereas 38% of the women did). This is probably a result of our distribution method, which was based on having friends and relatives help get respondents. As young men ourselves, a considerable percentage of our acquaintances were males in this age group as well.

The survey opened with some general questions about game use.

**Fig. 5.2 Videogame platforms used to play**

Among the survey participants, it was very common to play videogames (figure 5.2). 79% of the women said they played on one or more platforms, whereas 97% of the men did—only one man claimed not to play games. Among the platforms used for videogames, the iPhone and the PlayStation 2 had an overweight of female players. The Wii had an equal portion of women and men using it, whereas the rest of the alternatives were generally more used by men. PlayStation 3 and Xbox 360 games seemed to produce the most extreme gender division—73% of the men said they played such games whereas only 25% of the women said the same. PC and Mac games, mobile phone games and Nintendo DS games also tended to be more common with the men. On the Wii there was no difference between men and women, and on the PlayStation 2 and iPhone, women were more likely to play than the men. Online and offline computer games were the most commonly played with the women in our survey (about 50% each), whereas Nintendo DS, Wii, PlayStation 2 and PlayStation 3/Xbox 360 were played by between 25% and 35% of them.
In terms of play duration, the difference between men and women was rather obvious (figure 5.3). Whereas almost three out of four men answered that they tended to play for more than an hour, this was true for only one third of the women.

At this point, the survey might have asked: ‘How often do you play?’ This would have provided another perspective on the habits of the participants and perhaps indicate the level of enthusiasm towards games. The survey did not provide a definition of what it meant by ‘play games,’ so this was left up to the participants to decide. This was an oversight.

### 5.1.1 SIMILARITIES INSTEAD OF DIFFERENCES

The survey contained several simpler, either–or style questions regarding preferences in what the game might expect of the player. These are presented on the following page. One question concerned whether the participants would like to specialize with a few interior styles or whether they wanted “full freedom to mix and match.” Four out of five wanted “full freedom,” both among the women and the men. (The positive connotations to the word ‘freedom’ might be strong enough that this question should have been reworded or explained better.)

Almost nine out of ten of our participants wanted to create their own character, as opposed to assuming a character that had already been created (like in movies or literature, with a set of traits and a personality). Again, the women and men’s answers were distributed with remarkable similarity (figure 5.5).
**Fig. 5.4 Specialization or freedom**

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialize in a few styles</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Full freedom to mix and match</td>
<td>80%</td>
<td>78%</td>
</tr>
</tbody>
</table>

**Fig. 5.5 Established vs. user-defined player character**

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play an established character</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Build my own character</td>
<td>88%</td>
<td>89%</td>
</tr>
</tbody>
</table>

**Fig. 5.6 Desire for story**

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, I think stories make games more fun</td>
<td>49%</td>
<td>46%</td>
</tr>
<tr>
<td>No, I think stories distract you from the main game experience</td>
<td>11%</td>
<td>24%</td>
</tr>
<tr>
<td>Unsure/don't know</td>
<td>40%</td>
<td>30%</td>
</tr>
</tbody>
</table>
When considering the value of story (figure 5.6), the women and the men again lined up closely: 46% of the men said that stories make games more fun whereas 49% of the women did so. Significantly more women than men answered “unsure” to this question, an option that perhaps should have been made available for the two preceding questions as well. This may be down to a lack of experience with videogames, as we saw that about one fifth of the women respondents said that they did not play games and hence might have been less sure about how stories and games could work.

Generally, however, it is interesting to note that although we expected the women to be significantly more interested than the men in a story in the game, this did not seem to be the case with our participants. For the three figures listed on the previous page, gender did not seem to be a deciding factor in the respondents’ preferences at all.

The question presented in figure 5.7 asked what features were “important” to the respondents in our hypothetical interior design game. Note that the values are mean values computed from the users’ ratings, going from 1 (“not important”) to 5 (“very important”). Again, the differences between women and men are for the most part negligible, and the values are roughly following the same pattern for both genders. Both the women and the men have as the most important properties that the game will encourage creative expression, give clear feedback that will allow the player to learn the game’s skills, teach the player about real-life interior design, provide the player with a clear sense of progression, and give her or him the ability to create her or his dream home. Generally, the women gave higher scores.

For the subsequent question, as presented in figure 5.8, the participants were provided with a multiple-choice form and asked to check all options they felt would be “especially exciting.” As such, the wording had changed from the relative neutrality of the previous question, where we asked for “importance,” to the relatively subjective, asking for the “exciting.” Furthermore, whereas the subject in the previous question was game features, the question behind figure 5.8 was concerned with theme and setting—in other words, what the game could be about.

In figure 5.8, the men scored higher on average for most of the questions. Relative to the differences in the other groups, it was interesting that the women responded more positively to having a “group of friends” in the game, to be a “professional interior designer” and to become a “design guru”. The former is typical of the notion that “women are more social than men,” which is a common stereotype. The latter two preferences seem to comply with our presupposition that design would be a theme more popular amongst women than men, although neither the women nor the men were particularly enthusiastic about this option.
Fig. 5.7 Importance of features in an interior design game

<table>
<thead>
<tr>
<th>Feature</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration with other players</td>
<td>2.86</td>
<td>2.71</td>
</tr>
<tr>
<td>Rate others' work and compete online</td>
<td>2.49</td>
<td>2.75</td>
</tr>
<tr>
<td>Exhibiting creations online</td>
<td>2.39</td>
<td>2.43</td>
</tr>
<tr>
<td>Ability to create dream home</td>
<td>3.59</td>
<td>4.06</td>
</tr>
<tr>
<td>Clear sense of progression</td>
<td>4.08</td>
<td>4.05</td>
</tr>
<tr>
<td>Learning about design</td>
<td>3.49</td>
<td>3.82</td>
</tr>
<tr>
<td>Feedback on skills</td>
<td>3.60</td>
<td>3.91</td>
</tr>
<tr>
<td>Get to know clients</td>
<td>2.49</td>
<td>2.70</td>
</tr>
<tr>
<td>Career as a designer</td>
<td>2.86</td>
<td>3.09</td>
</tr>
<tr>
<td>Creative expression</td>
<td>4.49</td>
<td>4.17</td>
</tr>
</tbody>
</table>

Fig. 5.8 'Especially exciting' themes/ settings

<table>
<thead>
<tr>
<th>Theme</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>11 %</td>
<td>5 %</td>
</tr>
<tr>
<td>Group of friends who meet each other regularly</td>
<td>25 %</td>
<td>28 %</td>
</tr>
<tr>
<td>Interior photographer, your photos are judged</td>
<td>25 %</td>
<td>33 %</td>
</tr>
<tr>
<td>Magazine reporter, reviewing other designs</td>
<td>17 %</td>
<td>11 %</td>
</tr>
<tr>
<td>Lead TV team making interior design program</td>
<td>25 %</td>
<td>22 %</td>
</tr>
<tr>
<td>Design guru, defining trends</td>
<td>28 %</td>
<td>37 %</td>
</tr>
<tr>
<td>Chief of interior design business empire</td>
<td>31 %</td>
<td>27 %</td>
</tr>
<tr>
<td>Professional interior designer at design bureau</td>
<td>22 %</td>
<td>30 %</td>
</tr>
<tr>
<td>Small business, enthusiastic coworkers</td>
<td>21 %</td>
<td>33 %</td>
</tr>
<tr>
<td>Freelancer, work your way to the top</td>
<td>69 %</td>
<td>63 %</td>
</tr>
<tr>
<td>Help friends / non-commercial</td>
<td>36 %</td>
<td>28 %</td>
</tr>
</tbody>
</table>
The one option both genders preferred by far was the rags-to-riches concept of starting out with nothing and then working your way to the top. The result is not particularly surprising, as this concept has been a basis for a number of top-selling titles with both female and male audiences over the last twenty years.

5.1.2 APPEAL OF VISUAL STYLES

A set of visual styles was also part of the survey. The aim with this question was to aid the design of the prototype and explore whether choice of visual style would be likely to affect its popularity. This question used likert scales, meaning that the respondents gave each style a score, on a scale from 1 to 5, where 1 would mean “not at all appealing” and 5 would mean “very appealing”. The samples we used for visual styles appear on the next page. The mean results were these:

![Fig. 5.9 Appeal of visual styles](image)

Most of the styles were chosen in part because they were (subjectively) assessed as possibly ‘women-friendly,’ except for picture 3 and 6. Picture 1 and 2 depict styles related to ‘do-it-yourself’ and ‘scrapbooking,’ which we saw as typically feminine activities. Picture 4 has the soft sheen interior magazines tend to utilize, while picture 3 was used as a contrast, representing what we considered to be a commonsensically ‘masculine’ interior. Picture 5 is the game The Sims 2, which has a female audience of over 70% (Waters, 2006). Picture 6 is a visual style prototype for our game. Picture 7 is the interior design game Home Sweet Home, which seems to be targeting a female demographic. Picture 8 is artwork from Animal Crossing, another title with a substantial female audience. Picture 9 represents a realistic cartoon style while picture 10 represents a ‘feminine’ cartoon style.
Although the purpose of the question was to explore ‘feminine’ visual styles, the men generally found the images more appealing, with higher average values for seven out of the ten styles. Furthermore, picture 3 and 4, which represented a stereotypical view of what feminine and masculine interiors might look like, produced very similar results.

5.1.3 INTEREST IN INTERIOR DESIGN
The survey provided some evidence that interior design might be a good thematic basis for a game aiming to appeal to women. The last question was optional, and asked the participants to write some words about what interior design meant to them. The majority of those who answered this question used positive or neutral words to describe their relationship to interior design. However, in numbers, the women seemed more enthusiastic. Out of 37 male participants, 5 chose to answer this question (14%). Out of our 104 female participants, on the other hand, 52 answered the question (50%).

Some of the women that participated in the survey said they were not particularly interested in interior design, but that they liked to have it ‘nice at home.’ One woman stated, “I like to look at parts of my home and think, yes that works and it makes me feel good.” The most common response was to call interior design a ‘hobby.’ One of the women said, “It’s a chance to be creative and express your personality through the interior.” The number and length of the responses to this question suggested that the women had a more reflected-upon relationship with interior design than the men, and the general positivity of responses suggests that our thematic assumption was reasonable. Negative remarks were few, although one woman simply stated, “I am not interested in interior design.”

5.2 Women’s relations with videogames: interview findings
As part of the research project, my co-worker1 and I conducted a series of group interviews and individual interviews. In this section, I present and categorize the data from these interviews. In the first subsection, I give an overview of what types of experience levels and play frequencies the informants described. I then discuss the main topics of the discourse and analyze how the informants positioned themselves in relation to these topics. Although I give a unitary overview here, the interviews were conducted on different occasions, as detailed in table 3.1.

My epistemological stance in my presentation of the interview data is constructionism—the interviewer and the informant(s) are understood to perpetually be constructing the reality that they see (Silverman, 2001: 95). Through conversational acts of negotiation, they ‘agree upon a way to understand the world.’ Most often, the stories told were attributed to a single person, as we asked questions about how the individual informants ‘felt,’ what they ‘thought’ about certain topics and so on. However, these stories are still a collective reality, in that the interviewer and the other

1 See section 1.6 for more on the division of tasks.
informants were present and reactive to what was being said. Because of this, I write that informants ‘say,’ ‘claim,’ or ‘state,’ their utterances.

In the following, I will sometimes use ‘London group’ to denote the informants from the first group interview on November 19th 2008, and ‘Grimstad group’ to denote the informants participating in the workshop on January 8th 2009. The four participants of the London group were 19, 20, 32, and 40 years old, whereas the six Grimstad participants were 35–48 years old. Of the seven informants that were interviewed individually, most were in their early twenties. An overview of the interview activities can be found in table 3.1.

5.2.1 INFORMANTS’ EXPERIENCE WITH GAMES

In general, very few of the informants seemed to identify themselves as a ‘game players,’ however all informants said that they had at least some experience with playing videogames on a computer or some other game platform. Aside from their computers and mobile phones (which can be used to play games), 3 of the 17 informants told us they owned one or more videogame systems of their own. No informants said that they played games on mobile phones. When describing play situations that involved a videogame console or a handheld device, most informants said or implied that the system belonged to someone else, such as a male family member, boyfriend, husband, or the informant’s children.

All our informants were accustomed to the concept of videogames and many were able to name a series of examples. The games the informants spoke about most frequently were games such as the card games Freecell and Solitaire. Other games that were mentioned by more than one informant included the platform game series Super Mario, the puzzle game Tetris, the fighting game Tekken, the social simulation The Sims, and the exercise game Wii Fit. A series of other titles were mentioned as well, but seldom more than once. These included action games Bioshock and Resident Evil, skateboarding game Skate, platform game Croc, fighting game Mortal Kombat, and action adventure The Legend of Zelda: Ocarina of Time.

The level of game playing experience and frequency of play that the informants described varied considerably. Based on their accounts, the informants could be categorized in several ways, but I will describe them here as three broad (and slightly fuzzy) categories: First, the ones who said they had hardly played any games at all, second, the ones who said they did play games and expressed enthusiasm about it, and third, the ones who told us they had tried a lot of games, often found them fun, but did not play regularly.

The first category consisted of two informants. Paige, a 36-year-old woman, first claimed she did not play games at all, although later she said that she did play Solitaire on the computer, “maybe once a year,” and had tried Pac-Man in the 1980s which she said she found fun. A similar story was told by Daphne, 40, who insisted that she had not played a game since Space Invaders, another 1980s
pioneering hit title. Although Daphne was very articulate about her dislike of videogames, and said that she would rather “watch crap on the telly” than play a videogame in her free time, she also told us that she thought Space Invaders was “bloody brilliant.” Even though these two women both positioned themselves as having avoided videogames, it did not seem to mean that they did not (or could not) enjoy playing them.

With the second category, the ‘regular game players,’ a wider range of videogames were mentioned. Nadia, 22, told me that she owned three game consoles herself, the most recorded among the informants. She said that she was most interested in role-playing games and horror games, although she owned fighting games as well. Nowadays, she said, she played games “every now and then,” but when she was in high school, she used to play games “almost every weekend” with her female friends. This play situation—playing with female friends—was not described by any of the other informants.

Londoner Odette (22) said she played games “once, twice a week,” and told me that she had recently enjoyed a game about skateboarding, Skate, and a dystopian action game called Bioshock. Even so, she did not feel that she was a “gamer”:

I wouldn’t say that I’m a gamer. I’m not interested in starting a game, working through the levels and finishing it, I just dip in and out? I’m more of an experimental.

Odette did not describe herself as interested in the narrative structure many of today’s videogames provide, with a beginning, a mid-section and an end. Instead, she described ‘her own’ way to enjoy them.

Considering the three categories established above, the most common was for the informants to position themselves into the third category—women who had tried games from time to time and were often able to name many, but did not describe themselves as ‘regular’ players. Among the women in the Grimstad group, all six informants described themselves in this way. Four of them specifically described their experience with games as having “tried a lot,” although they did not get “hooked.” Furthermore, all informants in this group were mothers over the age of 35, and all of them at some point during the interview came to relate the ‘trying’ of games to their children. For 47-year-old Elin, this seemed almost to be a failing on her side as a mother. She told us that it was “a constant disappointment for the kids” that she did not “show more enthusiasm” for games. Irene, 44, described videogames’ relationship to family life in a more positive light. She said that the quiz game Buzz was her most-played game title because it was “fun for all ages,” thus possible for her younger and older children to enjoy together. As such, the descriptions given of videogames during the Grimstad interview varied somewhat, but in general, videogames were described as something they had mainly come in contact with through their children, and something they had, to a certain extent, distanced themselves from.
This distancing was also described by several of the other informants. In the London group interview, three of the four informants described their relationship to videogames in a similar manner—like it was somewhat distant from their everyday lives. 19-year-old Ann stated: “I don’t have a clue about computer games.” Betty, 20, said that she played “a lot” when she was “eight or something.” However, this was not the case any longer: “But now, I don’t know, no.” Rachel, a 22-year-old, told us that she used to play games like the platform game Crash Bandicoot and fighting game Tekken in the past, and noted that she should have kept playing, because she thought games were “amazing.” Yet for the most part, she stopped playing games around the age of 16: “It just seems that you find other things to fill your time with,” she said.

## 5.2.2 GAMES AS ‘A WASTE OF TIME’ AND LACKING UTILITY

Rachel was not alone in mentioning free time as a reason why she did not play more games. In fact, this sentiment was voiced again and again by different informants. Elin felt that the issue was how she was going to “have the time” to play games, arguing that there was “so much other stuff to use my time on” that the notion of sitting down with the Wii (the game console in her house) seemed unnecessary. She also related this difficulty to finding the time in the stressful everyday life:

> In some games a certain amount of time is required to learn the game, and for this you need quietude [Norwegian: “re”], and to not have somebody nag about something else. You need time, simple as that, and you need to be motivated to get into the game.

Guro (47) felt that her language games provided her with educational value, as opposed to “time-wasters” such as car games, tennis games and SimCity. Daphne from the London group claimed she did not play computer games at all. She said they did not even interest her “in the slightest,” because it was all “wasted hours” to her. "What do I get out of it? I get absolutely nothing out of it.” Here, both Guro and Daphne are referring to the idea that one should ‘get something out of’ leisure activities—that they should be useful in some way.

Lene, 26, positioned herself in this way as well. “The problem with games,” she said, “is that they feel like a waste of time.” On the occasions she played games, it was “most often in order to learn something,” she said, while praising Wii Fit for being both a game and an exercise tool. Mandy, 23, from London, told a similar story. Her play pattern consisted of bi-weekly sessions of Sudoku while on the bus with her Nintendo DS handheld machine. Mandy claimed the educational value of Sudoku was a crucial impetus: “If I don’t learn anything from playing the game there’s no point [in] me sitting down there and playing the game,” she said. She argued that Sudoku made her brain “a little more active.” She played, she said, because she “gained” something from it.

The requirement that videogames should be ‘useful’ did however not seem to be all-encompassing neither with Lene nor Mandy. Lene told us that she enjoyed 2D Super Mario games, but this was “the only exception” to the rule that the game should offer her something of value. Mandy described how she played “Nintendo sometimes” as opposed to games that were both fun and useful—Nintendo
games were seemingly implied to be ‘only’ fun, yet still acceptable. In a similar vein, Betty of the London group said about videogames that “if there’s something very interesting, actually, for me, it’s a good way to waste some time,” a statement Ann agreed with. This suggests that ‘wasting time’ might have been a more complex proposition to the informants than merely representing an activity void of all value.

5.2.3 EASE OF USE AND EFFORT REQUIRED TO LEARN

Sometimes during the interviews, the idea that games were a ‘waste of time’ was explicitly connected to the effort needed to get into and learn a game. Lene explained that “most games these days are like that; first you use four hours to learn how to play. It is not that I am not able to use three hours on it, I just do not bother.” In other words, the process of learning the game was described as a chore.

In the Grimstad group, several informants also talked about difficulties with mastering games when discussing why terms such as “hard” and “complicated” had been selected when filling out the word association sheet. As Heidi explained, her early difficulties with learning and mastering videogames may have been partly to blame for her subsequent hard feelings towards them. She said that because she “was always the one who lost,” it may have been “partly the reason” why she “distanced” herself from games. Frida (35) explained how it felt humiliating to be bested at the Game Boy by her own eight-year-old, whereas Guro pointed out that not all games were hard to play, instead placing the ‘hard to play’ label on “the boys’ games.” The educational games she used to play were “not hard to learn at all.” Elin similarly argued that difficulty depended on the game in question, stating that “not all games are time-critical,” hence not all games were hard. She did however put emphasis on the demands placed by games on her coordination skills and her reaction skills:

Elin: And if [the game] is also about coordination, for instance, and the ability to react quickly, then it’s evident that you have an even harder time, with [the game], yeah.

Guro: And then one gets mad.

Elin: Yeah.

[Several informants laugh]

Guro: And that is something I do not want to spend time on. [Laughs]

Elin: And in that case, you can easily become somewhat disheartened. In which case I think it is hard, and comprehensive [Norwegian: “omfattende”], and, yeah.

Irene said that the ease of use was the primary quality in a game. She argued that the ideal game needed to be “easy to understand.” She proposed that the user manual should be easy to understand so that one could “read up on” how to solve various game tasks.
In general, ‘difficulty of use’ was not brought up by informants as often as ‘waste of time.’ During the Grimstad group, most informants expressed some concern with difficulty, although it may be worth noting that the matter was mostly elaborated on as part of the word association sheet activity, which was designed to stimulate discussion. Furthermore, in the course of all the other interviews, the notion of difficulty level was only mentioned two times. The first time it was brought up, Celine noted that most of her boyfriend’s games didn’t really interest her, because they were “too hard.” The second time, Nadia told me that the reason why she did not play shooter games was that the “straightforward aim-and-shoot” did not attract her, and that it was also a little difficult to learn the controls. However, this may have been down to, she said, a “lack of appeal in the concept,” as she contrasted her experience by pointing out that she had the required patience with other games.

5.2.4 MOTHERS ‘ON THE SIDELINE’

Aside from these claims that games were a ‘waste of time’ and ‘too difficult,’ I also found other commonalities among most informants. Of special interest to me was how the women positioned videogames in relation to their lives.

As mentioned in the introduction, the women of the Grimstad group, who were all mothers in their 30s and 40s, described videogames as something related to their children. The connection between games and children was consistent even though the informants’ children varied in age, from five to being in their twenties. According to Heidi, she had “tried a little bit of car games and other stuff,” although she “never thought it was fun. But they [her children] thought it was great fun.” Guro, when asked to describe her relationship to games, began her account by describing her children’s relationship to games: “I have had boys at home who have played since the dawn of time, but I was never very hooked myself, no.” All informants in the Grimstad group did to some degree position themselves in this way—as mothers with children who played games in a way they did not. Heidi said that in spite of having tried games such as Guitar Hero, she “did not get hooked, even though others did.” Moreover, she told us that she actually never “got hooked” on any game she had tried. “It’s not my thing,” she said. “That’s just not where I’m at.”

The “mother on the sideline” position was not the only one described in Grimstad interviews. The informants in this group did not at any point describe their relationship to videogames as being mediated through their husbands or other adult males aside from children, but some of them did describe and imply another kind of game play situation—a situation where they were the ones in control. For Elin, the game time she spent on her own, without coming into somebody else’s preexisting playing space, was her time with the card game Freecell and the puzzle game Tetris. She said:

*My experience with games, it’s limited to being a Freecell expert, but there [in that game] I am very expert. I have a lot of self confidence regarding Freecell. [...] And I have broad experience with Solitaire card games in general. Tetris, I like very much.*
Frida did seem to imply some ownership of the karaoke title *Singstar*. She first described how her game playing experience was mainly linked to her kids, before interrupting herself: “Or, *Singstar* [I play] with adults as well, and that is great fun on various occasions.” Later in the interview, this was further accentuated when I asked the informants if they had ever bought a game for themselves; Frida told me that she had considered getting *Singstar Abba*. However, if she were to buy the game, she would do it in order to play the game when she had guests visiting. She added: “I would never get the idea to stand there [in front of the TV] and sing by myself.”

Irene told us that when she was, for a period, not working, for the first time in her life, she got “hooked on games”. The game was an online version of the board gaming classic *Backgammon*. Irene explained that she had played *Backgammon* since she was a child, which made the game “easy to get hooked on.” She also mentioned *Solitaire* and *Tetris* “and so on,” and although she was “no expert,” she said that she knew “where to find it [Solitaire] on the PC,” implying discursive ownership. Irene also described an online game that emulated a single-coin game similar to those found in game arcades, a game she said she may very well had become “hooked on.” Once more referring to addiction, she said, “And that [game], I felt a little bit that it … [laughter] … it could have become dangerous.”

The Grimstad informants generally positioned themselves in two ways in relation to videogames: one, what could be described as the ‘mother on the sideline’ position, in which the kids were the ones ‘owning’ the playing situation, and two, a more in-charge position where the informants described themselves as aware of some options such as *Solitaire*, *Tetris*, *Singstar* and educational titles, and also claimed to use them on their own initiative.

### 5.2.5 GIRLFRIENDS AND PARTNERS—‘ON THE SIDELINE’ OR PLAYING?

With the informants from the London group, the prototyping sessions and from the individual interviews, a similar pair of strategies was employed. Videogames were often described as a ‘sideline activity,’ in that most of the women did not own the equipment on which they played games, and often described that there were somebody else in the play situation that could more easily be said to be ‘in charge.’ However, in these cases, this ‘somebody else’ was not the informants’ children, but rather tended to be male friends and boyfriends. As with the Grimstad group, many informants told alternative stories as well—these stories described situations in which the informants had made videogames ‘their own,’ at least to some degree. The depth of this appropriation of the playing situation differed drastically between the different informants, however, including within the London group.

Daphne in the London group positioned herself as being very clearly ‘on the sideline,’ and she was also starkly critical towards both videogames and computers in general. She described the situation in her house like this:
I live in a house where my bloke is a computer game freak, and [owns] every single console on the market, and every single ... he’s playing this on the projector, on this huge screen and it’s just ... All our neighbors’ kids come around because they want to play with him. I don’t even know how to turn it on! And when the kids come around, they say stuff like “Do you not play?” and I go “No, why would I?”

According to Daphne’s story, she explicitly distanced herself from those who wanted to play games, by emphasizing how she did not even know how to turn on the game machine.

Celine, another woman in the London group, told a similar story of having a partner who had people over to play games, but her account was worded differently. Talking about the violent sword combat game God of War, she told us that she did not play it herself, but “enjoyed watching it, even if it was one of the games [my boyfriend] played with his friends.” The reference here, “one of the games he played with his friends,” contrasted this kind of game with the other kind of game Celine describes, namely the games she played together with her boyfriend. She said, “[My boyfriend] loves playing videogames with me, but most of the stuff doesn’t really interest me.” Despite of this, Celine was able to name both the adventure Ico and the platform game LittleBigPlanet as games she had enjoyed together with her boyfriend. In her descriptions of these games, it seemed that she had engaged on her own terms with the game content, describing Ico as “amazing, really brilliant” and explaining how they made a co-operative experience out of a game otherwise tailored for a single player: “He did the fighting bits, and I did the jumping bits. I figured out the platforming.”

According to Celine, videogames were primarily the domain of her boyfriend, but she also described herself as participating in the playing situations, being more enthusiastic about, and actively appropriating, the games she liked. By splitting up the single-player action adventure Ico, she was allowed to only use the “bits” she liked, and the bits she “figured out” herself, whereas she let her boyfriend handle the rest. Thus her subject position included agency in the creative negotiation of the ways the game could be used, but it also reestablished her dependence on a man as the one in ‘complete’ control of the game.

Rachel, one of the prototype testers, positioned herself in a similar manner. She told me that she had never really had an interest to have a game machine at home, although she said she was currently looking into buying a PlayStation 3. When I asked her about what made her want one, though, she said:

Because ... I think, because my husband wants one. Not really me personally. He just said, “I really want a PS3 [PlayStation 3], because of all the functions that it does,” and ... I don’t know, I think, because it can hold music, and access the Internet, and things like that. Yeah, I should know more about it, but I don’t. [laughs]
What is interesting about this is that this is a young woman who otherwise gave the impression that she was quite enthusiastic about games, and who noted that she usually got “drawn really into it when someone else have it [a game to play].” Rachel also said that she could play games for an hour without getting bored, and that if she had a PlayStation 3 and the game _Tekken_, she would play it “every week” because “it’s there, and I enjoy it.” In other words, she seemed to enjoy current videogames, but still positioned herself mainly on the sideline with regards to the acquisition of games equipment. She also said that she only played games when visiting her family, in which case she played with her younger sister.

The positioning strategy employed by Odette, another informant interviewed after prototype testing, seemed even more paradoxical. At the one hand, Odette said she played games “maybe, once, twice a week,” hence games could be understood as an integral part of her everyday life, and she was one of the more frequent game players among the informants. On the other hand, Odette said she had never bought a game for herself, and claimed that everything she played, she played on male friends’ consoles with their games. She said: “It’s more of, like a, kind of a social thing, I’d say. If people are playing, I’ll kinda sit with them, or try and play, or ... but not, not very long at all, compared to some people.” Odette seemed to imply that there were some ‘other’ people who played games more ‘properly,’ whereas she was interested to try, but not interested to own. When asked how many people had provided her with games, she said, “probably about five? Yeah, it’s just mostly various men I’ve lived with have had consoles, if not many consoles [laughs], so, yeah.”

**5.2.6 POSITIONING STRATEGIES: WOMEN ‘OWNING’ THE EXPERIENCE?**

We saw with the Grimstad informants how games such as _Solitaire_ and _Tetris_ were appropriated as ‘their own.’ This was also common in the London group and the individual informants. Mandy told us that she owned the handheld machine _Nintendo DS_, on which she used to play _Sudoku_ on the bus. She explained that she did this “maybe once every two weeks,” which she said was all that she played on her own. However, it was evident that this was an experience “of her own,” as she said she had bought the DS herself, and could play for up to _four hours_ at a time. Similarly, Ann, who participated in the London group interview, told us that she occasionally liked to get a glass of wine and sit down in front of the computer to play _Chess_ or _Backgammon_ online, which was “really cool and something we used to do at home.” Again, the titles that are mentioned are digital versions of physical board and card games, and similarly to Irene in the Grimstad group, Ann mentions specifically that it was something she was used to at home.

Finally, two of the informants described positioning strategies that were interesting because they were distinctly not like the others. The first of these women was the individually interviewed Karen (22). Although Karen did contextualize her playing habits with a close, male friend, with whom she had played games since elementary school, and who was described as a crucial source for some of her videogame experiences, she also positioned herself in other ways. Her selection of game titles was somewhat atypical. In addition to games mentioned frequently such as _Solitaire_ and _Super Mario_, she
described fighting games such as *Street Fighter IV* and *Tekken Tag Tournament*, and action games such as *Grand Theft Auto: San Andreas* and *The Legend of Zelda: Ocarina of Time*. Karen’s videogame console history was also notable because it did not focus on boys and men; it was Karen and her sister who had “fought over” the videogame systems in her home, and when she played *Guitar Hero*, she did so at her father’s girlfriend’s place.

Karen described herself as a “bad winner” using taunts when winning such as “ha ha, what did I say?” Furthermore, her play style did not align with typical notions of ‘femininity’: She made a point out of how she had played *Grand Theft Auto* by ignoring the missions, instead focusing on destroying columns of cars with the flamethrower (a fire-emitting weapon in the game). Karen said that one of the things she liked about *Grand Theft Auto* was to “just run around and be nasty.” However, she also gave less brash descriptions of her relationships with videogames. For instance, she described her skills in *Guitar Hero* as “quite good,” because she “no longer lost on ‘easy’”—and in a general assessment of videogame skills, she stated that she found herself to be “good for a girl” (my emphasis).

The second informant that challenged the most common positioning strategies was Nadia. As with Karen, Nadia put emphasis on play situations that were not ‘owned’ by boys or men, telling me about how she and her girlfriends had used to gather during the weekends to “dim the lights, turn down the temp, and play.” These days, Nadia did not play as often as she used to, however, she said that “every now and then, I’ll pick up a game and diddle around.” She described herself as “a bit of an adrenaline junkie” and that part of the appeal with videogames was to “escape reality every now and then.”

5.2.7 THE GENDERED PLAY SITUATION—I AM A WOMAN, CAN I PLAY?

Even though there was a clear trend with my informants that they positioned themselves as ‘on the sideline’ of many typical game playing situations, gender was rarely brought up explicitly during our conversations unless we asked direct questions. Since it was explained in most of the interviews that the project concerned women and videogames, it could be that gender was already perceived to be an underlying theme.

One of the interview situations was conducted without telling the informants that the research concerned the gender–games relationship. This was the prototype testing sessions, in which Mandy, Odette, Paige, and Rachel participated. However, even among those informants who were not informed of the research topic, gender was not brought up unless we asked them directly. This could be interpreted to mean that even though boys and men generally play more than girls and women, the informants’ gender is not consciously seen as a hindrance to partaking.

In the London group, gender was a clear theme with one of the informants, Ann. When explaining why she had never taken an interest in videogames, she mentioned her “girlish” upbringing. To her, growing up in a “girlish” manner meant not being into games:
But if you were never into it [videogames], and I think that depends, because, probably it is because you grew up as, like girlish, too much, in our childhood, and that we have never been so much into it. So these times it’s not very interesting.

Ann also told us a story about a friend of hers that used to be really interested in games. This friend was taking the initiative to play games, and “loved to do it,” even sacrificing opportunities for socializing with her friends. Ann said that she and her friends “were like, whaaat?”—implying that this kind of videogame enthusiasm in a girl was surprising and perhaps not completely accepted. She said, “But it’s not really because of her boyfriend, she loves to do it.” There seems to be conception here that it would be more normal if she behaved like this if it was “because of her boyfriend” than if it was on her own impulse—videogames were implied to be a more accepted pastime for boys and men.

Heidi from the Grimstad group also seemed to think that being an adult woman was related to not playing games. She told us that she had done some research on the Internet, and seemed surprised that some of her results told stories about “women, adult women, that they were doing it [playing games]! That this [games] was kind of the thing [for them].” Heidi explained this as being a matter of age: “I have a daughter who is twenty years old. And she, and her husband […] they are hooked, on such as computers and such […] I think the generation after us is more ...” Another Grimstad informant, Janne, went into depth on the question of the appropriateness of women game players. She said:

Very many times, girls, or, women, that it can be not politically correct [for them] to say that games are fun, that in a way, it’s that we do not allow ourselves to sit down and play. To an extent, we’re more ‘we need to tidy up the house and get all the other stuff done,’ so that it’s kind of a bit lazy to sit down to play. The impression I get at times, is that one doesn’t say that one does it [play games], but we do it anyway, perhaps.

By stating that “we do it anyway, perhaps” and that this may be an issue of what is and is not considered “politically correct,” it is implied that women’s relationship to videogames might be marginalized and made invisible through discursive silence.

On some occasions, I asked the informants directly how they felt about gendered values in games. Rachel said, “There’s this stereotypical view that men enjoy games more,” although she didn’t think it had “anything to do with that [gender],” since both men and women “can have the same interests, really.” To Rachel, men and women’s interest in games all depended on the “game concept and what it is,” listing fighting games as being “maybe more for guys” while dressing up dolls, “obviously guys wouldn’t want to do that.” Still, she said, games are “equal to both,” she did not think videogames “should be a man thing.”
Some of the informants showed an awareness of some of the gendered connotations that exist in today’s landscape of commercial videogames. Betty and Ann told us that they found a TV commercial for the puppy simulator Nintendogs “really insulting, and so stupid,” with its focus on the two “very perfect and blonde” girls playing the game, who were squealing with glee. Betty said, “and it’s so ... I mean, made for women, I mean, they want to sell it like that!”

Odette seemed less provoked by this line of marketing. When asked what kinds of games she considered to buy with the handheld Nintendo DS she considered buying, she replied, “probably quite girly games, like [laughs] the ones on the adverts. I don’t know... Um ... [pause] I don’t really know. Just girly ones.” When I asked Odette what she thought would make a game “girly,” however, she said, “you know, like those in the adverts, where you’ve got a little pet, and stuff like that.” Although it was unclear which adverts she was referring to, it seems that she felt that some game advertising she’d seen carried gendered connotations—identifying the advertised games as “girly.” It is worth noting that this was the same informant that had enthusiastically told me, mere minutes earlier, about how she liked to play the ‘macho’ action game Bioshock and the skateboarding game Skate, which are not typically described as ‘girly.’ By referring to the “girly” games “in the adverts,” Odette made visible how the adverts are part of the discourse on gender.

5.3 Joys and frustrations: game testing sessions

The first game tested was the creative puzzle game Crayon Physics Deluxe, where the player is tasked with drawing shapes on the screen that turn into physical objects that interact with each other. The game is controlled by pointing and clicking with a mouse. The goal of the game is to exploit the physics to get the red ball to the goal by using one’s wits and knowledge of real-world physics. Heidi said that she thought it was “boring,” however the rest of the women were positive to the game and its graphics. Janne said that she “wanted to try it, wanted to do it. It was challenging, in a way.” Elin pointed out that it was positive that the game allowed the player to “learn about gravity.” Frida said: “As we sat and watched it, it seemed really boring, but as I got to try, it was a bit fun. I would have liked to continue [playing].” The game’s physics did not seem to be completely intuitive to all of them, however, as some of the testers repeated erroneous attempts.

The next game was multiplayer tennis title Wii Sports Tennis, which uses motion control. The testers played against each other, each team had two players. This game garnered the most emphatically positive response with the testers, with comments such as “great fun,” “very appealing,” and “very fun, very well made.” Frida noted that it was somewhat confusing that the player were both on the screen (as a game figure) and in the room. She also emphasized that the game was “playful,” stating that she found playful games “a bit fun.” Observing the play session, the testers learned to play the game very quickly. Furthermore, it was evident that the testers laughed often, even at their own mistakes. One informant noted, gleefully, that the game characters got dark clouds above their heads when they lost a ball. Guro pointed out that it was very appealing that it was “social, that you can do
things [play the game] together.” Heidi, however, seemed less enthused. “I know very well what it is like to play tennis, and it is not like that.” The game was “unrealistic,” she complained.

*Mii Creator* is a program where *Wii* owners can create cartoon versions of themselves, or somebody else they imagine. The program is controlled by pointing towards the TV with the *Wii remote*, thus resembling mouse control on a computer. This session was also characterized by regular laughs, as some of the testers created cartoon people while the others were watching. Commenting on the experience, Janne said, “It’s half the fun to create oneself. I do not know if it means so much [to have created the character] when you play, but [creating the character] is fun to do in itself.” Elin added, “It gets more important to win, when you play yourself,” while Frida pointed out, “it’s fun to create other characters as well. I can picture myself sitting around and tinkering with that.”

*Trackmania* is a relatively simple car game controlled with the arrow keys on the computer. This game got both positive and negative responses. The testers had varying success with controlling the car, but in general they had many problems and the learning process seemed slower. In order to get a feel for how they felt about the challenge of learning something that seemed somewhat harder, I asked the testers whether they thought the difficulty was such that they would not have bothered if they did not have to, or if they thought it was a challenge that they would have wanted to overcome. Out of six testers, three answered each option. Irene noted that “when you do it right, it’s great fun.” Elin noted that it was “irritating that one has to use so much time” to learn the game, however, she also pointed out that it provided “pretty environments” and was “well produced.”

The first response elicited about *Dreamfall* was uttered before the game had properly begun, as three flags towered in front of a winter landscape. Commenting on the visuals, one tested said, “that was very nice.” The game is best controlled by using the keyboard and the mouse at the same time, a combination that proved bothersome for Elin. However, even though she produced an erratic walking style when controlling the main character, she joked about it, blaming the game character’s “spastic problems” and not her own lack of skill. She thought the controls were a problem, and wondered, “If you learn it here, will you know how to do it the next time?” The next tester, Irene, also had problems with the controls. After playing, she noted that the game was “burdensome” and jokily added that she had “enough insubordinate teenagers at home” to not want to play as one. Frida said she thought it was “a bit exciting,” although she qualified her statement by noting that she did not know whether it would get “violent and such.” Janne noted that she was more interested in the everyday setting in the game than the ‘fantasy world,’ noting that she was probably “more of a Sims person.” Elin praised the game’s graphics, and thought that the moody fantasy beginning of the game was both scary and “a bit fascinating.”

The final part of the workshop game testing session was *Myst IV: Revelation*. Because of time constraints this play test was somewhat short (about 8 minutes); however, the reception with the game testers was positive. The game was described as “very beautiful,” it was “exciting to just look around in the room when you got in there” and it was described as “so nice.” The controls, which
require using the mouse to click in the direction one wants to move, did not seem to produce any problems.

In the individual game testing session conducted in March 2009, a similar set of responses was found; in short, several of the games seemed to be very popular, whereas others proved problematic, mainly in the sense of controlling the characters. This testing session had one tester, Karen (22). Whereas the action game *Gears of War* seemed to frustrate the tester, who said that she needed “one button to do one thing,” and that she got “very confused,” the car driving game *Ridge Racer 6*, which is of a similar complexity to *Trackmania*, seemed to engage her. Even though she kept failing to come first in the race, which was a requirement to proceed in the game, she did not give up until she had proven that she could do it. Thus she displayed both competitive urge and willingness to overcome difficulty.

5.4 Women’s play: prototype evaluation

The final prototype (see section 4.7) was tested in a computer lab in May 2009 with four women aged 21–35. Each of the interviews that followed the prototype testing started by talking about the experience of use, and in this, a couple of practical issues were brought up again and again: one, which the text went by a little bit too quickly, and two, that the manipulation of the furniture seemed to be less than ideal.

The dialog animation system was based around the concept of cartoon “speech bubbles,” and tried to emulate a sense of dramatic nerve by having parts of the text-based dialog proceed automatically. This dramatic sense was seen as key because the two women on-screen, Kate and Isabel, would be portrayed as slightly bickering at times, thereby indirectly introducing the player to the conflict of the game, which was that Kate and Isabel were not in agreement on whether it was a smart idea for Kate to leave her husband to “reinvent herself.”

I had tuned the tempo of the dialog so that I was comfortable with reading it myself (“I-methodology”). I also made sure to at all times keep the two previous speech bubbles on screen by moving them up (and fading them out a bit) when something new was said. This way, I hoped that the player would be able to ‘catch up’ with what had been said if s/he missed something. Even though this solution was complimented as a “good feature” by Odette, and three of the four felt the text speed was right for them personally, several of them also commented that the text speed could have been slower.

Manipulating the furniture was problematic as well. In order to place furniture, the user had to first click on one of the furniture style tabs (‘baroque,’ ‘modern,’ or ‘photo studio’ containing baroque furniture, modern furniture and photo equipment respectively). She then had to grab a piece of furniture by clicking and holding down the button, moving the mouse to drag the furniture into the
3D world, and let go of the button to place the furniture. This seemed to confuse several of the testers, who tried stuff like clicking furniture (instead of dragging it) or ‘dragging down’ the furniture tabs. I also observed one tester trying to drag colors from the color palette window onto furniture. Clearly, our mix of interactional styles was confusing. I believe clearer symbols, like ‘dragging handles’ and a more button-like appearance to stuff that needed to be clicked, could have helped making the game more intuitive.

As soon as the testers had accustomed themselves to the idiosyncrasies of the prototype interface, they did not seem to have further problems using the game. In other words, the mouse control, fixed perspective, and (hopefully) tidy explanation of what the game was about, all listed on the ‘feminine’ side of table 4.1, all seemed to work reasonably well for the testers. It is however worth noting that even though the camera controls had been simplified, the testers seemed for the most part to prefer leaving the camera alone, keeping the view mainly at the default distance and position. The exception to this what Odette, who felt, contrarily, that the camera was too restricted for her liking, wanting to get down and see stuff from different angles than the standard one, asking for “more options of where you could move around.”

5.4.1 FUZZY FEEDBACK AND SOCIAL MOTIVATION—DID THE WOMEN CARE?

The prototype was not presented as a ‘game for women’ but simply as a ‘game.’ It is therefore interesting that although the design solutions in it were based on a blatant mirroring of ‘masculine’ game concepts, the testers neither took offense nor did they mention gender at all when discussing the prototype.

It might have been somewhat optimistic to expect people not trained in the field of gender and games to recognize some of the ‘feminine’ patterns described in table 4.1 as gendered, but signifiers such as the ‘scrapbook,’ ‘interior design,’ and the female main characters, which are all relatively unusual in a videogame setting, were expected to provoke a response. The fact that none of them did may imply that the testers already saw the videogame landscape as catering to different kinds of interests and people—perhaps our game wasn’t ‘special enough’ in today’s climate, in which ‘feminine’ themes are more common than before. It may of course also mean that the testers were not accustomed to look for and criticize the gendered connotations of everyday artifacts.

However, for some of the remaining ‘feminine’ patterns the users did give comments that were of interest. First, table 4.1 postulated that using social motivation and reward in the form of characters asking the player to help them out and reacting to the player’s choices would be appealing to women. It further held that creating a sense of reward in “making people happy” would appeal. The characters in the game reinforced this by appealing directly to the player for some specific choice of furniture and styles.
Odette felt that the interactive narrative was what kept her interested in the game experience. She said she got curious about how her actions would affect the characters, commenting: “Like what they [Kate and Isabel] would say or when they would come back. That’s mostly what kept me clicking and going.” When asked how she felt this feedback compared to having a score, she answered: “It’s just more interactive than having a score, isn’t it, because you’re getting feedback … like, I would be intrigued now to try something different, and see what they would say then?”

This response is to an extent in line with the claims of table 4.1. However, getting a response from the game when playing was described as more important to her than whatever it was that the characters wanted. I asked her whether the fact that there were people caring about her placement of furniture affected the experience of placing said furniture. She said, “Yeah. I mean, I was just messing around then. But if I was really playing it, I would probably try and do it how they had said, or how it was instructed.” Here, Odette described how she was just “messing around” with the game, whereas the ‘proper’ way would have been to do as the game instructed. Although she says that if she was “really” playing it she would have handled it differently, it is noteworthy that she did not choose to do this during testing. “I’m always like that with games,” she said. “I just want to get straight into it, instead of … reading or watching films.” The exposition of the prototype, in this case the textual dialog, was not as attractive to her as “messing around”—playing with the game system.

Paige expressed similar ambivalence towards the dramatization of the game structure. When asked if there was something she liked or disliked about the game she had just tried, Paige started by saying that she “supposed” she liked the story and characters, pointing out that “they try to help you, do the right thing”. On the other hand, she said she “was not really considering them [Kate and Isabel] that much,” pointing out that “if you get into this [the game] and if you are someone who likes arranging things, you do whatever you want.”

Both Odette and Paige thus referred to the practice of subversive play. The player is not intended to ignore the context and authority of the game, but will do it anyway if the prospect of playing the game in her own way seems to be more interesting or fun. According to Paige, it was “good that the story and characters were there,” however she did not seem to care all that much about these aspects herself. “You get into the game and you just do what you want,” she said.

On the other hand, there was one informant who reacted more in line with the expectations of the player. This informant was Rachel. She seemed to be interested in what the characters in the game said, laughed at some of the jokes, and seemed to involve with the game’s social context in the way that was intended. At one point, she even ‘disagreed’ with the characters, thus they had some plausibility: our somewhat intellectually limited characters complimented Rachel with the interior she had created, on which occasion Rachel said, as an ‘answer’ to their compliment, “it looks disgusting.”
The way the game gave feedback was also characterized by the absence of any additional reward systems such as points or awards. This was not mentioned as a problem by three of the testers, but Paige was very vocal about it. “I don’t feel it is a game,” she said. “You don’t really get the pat on the back that you need, or a ‘well done’.” She admitted that the social feedback provided this somewhat, but she said, “I didn’t feel like wanting to engage more, or further, with it. So, yes in that sense you don’t really feel that it’s a game, it feels like I’ve got nothing to win.” In addition to the characters reacting, she would like to see “elements that indicates that you’re doing really well,” like “gold stars” or having the environment “change a little bit” as the game progresses.

This is particularly interesting coming from a person that claimed to hardly play games at all, as she was referring to rewards and feedback loops, common techniques within conventional videogame design. Although Paige described herself as having very little game experience, she still pointed towards a well-known videogame design pattern ‘missing’ in our prototype. These traditional forms of rewards, like gold stars and prizes, were not described as unnecessary or uninteresting, but rather as helpful in making the game fun.

5.4.2 CREATIVITY AND LEARNING VALUE—DID THE WOMEN CARE?

Both Rachel and Odette expressed interest in the way the game allowed for creativity and art. When asked what she liked and did not like about the prototype, Odette described her love for the “art side of it.” She said, “I’m a photographer, so I love color, and stuff like that, so I liked this sort of art side of it. Like the color, and choosing things, and … kind of reminding me like, you know in Sims, we used to play Sims? Like, Creating a house and stuff like that. That’s the first thing I thought of.” Odette did enjoy the art side of it, but she did not associate with art with the subject position ‘woman’ but rather ‘photographer.’

Rachel was also enthusiastic, claiming that creativity itself was interesting:

[The game] is interesting to make the time pass, but also to be creative. It’s something that you can kinda get drawn into, and you can do it over and over again, it’s not something that I think you only play once, and then you feel like, it’s too boring to come back to. So it’s kinda like an open end.

I was curious by this answer, so I asked her to explain why she would want to play it more than once:

Because there’s a lot that you can do, when you’re creating or designing something, or making changes, there’s always kinda something to do or change. You might just wake up one day and say, “ah I wanna play this game, I have an idea for …” I don’t know, interior design, I think it’s quite fun.
Creativity was used as a positive term and label by Mandy as well. She described the game as “really good because it makes you be more creative as well.” She also added that the game allowed you to learn about interior design, which she said was “good.”

In this chapter, I have presented the data that were collected through the various activities I have conducted, with a diverse set of methods. These activities were conducted in order to provide a deeper understanding on both ‘preferences’ (perspective 1, see section 1.3) and ‘context of use’ (perspective 2). In the next chapter, I will discuss these findings by structuring them further. I will also try to answer the research question’s third perspective by reflecting upon the interactions between the data, the theory, and the experiences I have had with the design process itself.
6 DISCUSSION

In this chapter, I discuss the findings of my study in light of the research question that was formulated in section 1.3, where I asked: ‘What does it mean to design for women?’

In order to answer this question, I have, in collaboration with my co-worker Erlend¹, undertaken a practical interaction design project through which we envisioned, designed and constructed a ‘game for women.’ This design process was described in chapter 4. As a part of the knowledge construction process that characterizes interaction/game design (Löwgren and Stolterman, 2004: 95), I have further conducted a series of research activities in order to learn more about both ‘preferences’ of women, and the ‘contexts’ in which women play, or do not play, videogames. These activities were described in chapter 3, and the data collected were presented in chapter 5.

As I described in section 1.3, I have investigated the research question through three perspectives:

1. What elements in videogame design appeal better to women?
2. How do women relate to videogames, as a concept, and in play situations?
3. How does gender relate to the design process?

In order to give a clearer picture of the discourses, subject positions and modes of performativity that I have identified, the first two of these perspectives, or questions, constitute section 6.1 and 6.2 respectively. In section 6.3, I will discuss how the experiences I have had with the design process relate to the understandings of gender and findings that have been developed.

6.1 What elements in videogame design appeal to women?

In this section, I summarize the findings of the parts of the study that concerned women’s preferences in videogames. In the analysis of the design process that led to our software prototype, I described in chapter 4 how literature on gender differences in the use of videogames and technology led to a operative image (Löwgren and Stolterman, 2004: 19) of what a ‘game for women’ might look

¹ See section 1.6 for more on the division of tasks.
like (section 4.3–5), hypothesizing a series of ‘feminine’ game design elements (table 4.1). These were as follows:

1. ‘Soft mastery’, rewarding ‘tinkering,’ ‘negotiation,’ treating machine like a person, technology seen as ‘expressive’
2. ‘Fuzzy,’ verbal feedback, nonviolent, lesser setbacks
3. Indirect competition, or collaboration
4. Narrative important, complex characters, social conflict, no clear ‘right’ answer, ‘figuring out the right thing to do’
5. Realistic context
6. Game rules explained in a tidy and friendly manner, easy to learn, simple controls
7. Challenge style: organizational, creative
8. ‘Organic’ interface, based on metaphors
9. ‘Feminine’ signifiers such as interior decoration, scrapbooks, magazines, soap opera, pretty typography
10. Women depicted as active and in charge of the narrative.
11. Fixed perspective (scrolling and zooming allowed)

On the basis of these ideas, a software prototype was designed and constructed. In this chapter, I contextualize these ideas in relation to the data that has been collected through survey, interviews, game testing sessions, and prototype evaluation, as well as to available research literature. More specifically, our research activities produced data relating to notions 1–6. Ideas 7–11, although part of the operative image and the final prototype, were not discussed sufficiently by testers, neither did our observations of play lead to insight. Consequently, my discussion will concentrate on ideas 1–6.

In the survey, we found some support for the notion that women tend to play less than men, as 34% of the participating women said they played “more than an hour,” whereas 73% of the participating men said the same. This was expected, as most studies find that women play less than men (BBC, 2005; SSB, 2009). However, it is worth noting that most of the participating women (79%) did play videogames. The survey also showed that the distribution of male and female users varied from platform to platform—computers, mobile phones, Xbox 360 and PlayStation 3 tended to be used more for games by the participating men, whereas the iPhone, PlayStation 2 and Wii were relatively more popular with the participating women (figure 5.2).

The main finding of the survey was that the data showed no clear tendencies of gender-based preference differences in game content. Instead, in many cases men’s and women’s values were surprisingly similar (See figure 5.4–8). Hence whereas we expected to find differences, instead we found similarities. For example, both women and men wanted to create their own character, both women and men wanted to be “free to mix and match” interior design styles, and about half of both women and men wanted a good story in the game.
COLLABORATION, EASE OF USE, AND NON-VIOLENCE

‘Collaboration,’ notion 3 in the list above, was hypothesized as a ‘feminine’ game design element based on a selection of literature (Brunner et al., 1998; Gorriz and Medina, 2002; Graner Ray, 2004: 43–45; Hartmann and Klimt, 2006). However, neither the men nor the women who participated in the survey found ‘collaboration with other players’ (figure 5.7) to be particularly important—in fact, the men were more interested in collaboration than the women, contrary to what previous research showed (ibid). Similarly, although ‘direct competition’ was hypothesized as a ‘masculine’ element, the women were more interested to ‘rate others’ work and compete online’ (figure 5.7) within the context of our interior design game. Competition was not part of the interview questions that were used during any of the interviews. Nevertheless, it was brought up by several of the informants. One informant stated that ‘when I am playing a game, it is to win,’ whereas another said that part of what she found fun with games was the ‘fun of winning or losing.’ However, a third informant suggested that the reason she had distanced herself from games was that when she first encountered them, she was “always the one who lost,” thus connecting competition to difficulty level and a sense of lacking the necessary skills.

The emphasis put on difficulty level (notion 2 and 6) varied from session to session. During the London group interview, the notion that games were “too hard” was only mentioned once. Similarly, although I specifically asked the informants in the May/June 2009 prototype testing sessions about whether there was anything they particularly disliked about videogames, difficulty was not brought up. However, in the Grimstad workshop, game difficulty was mentioned on some occasions, one informant noting that ‘ease of use’ was the primary quality of a game to her. Moreover, during the game testing session of this workshop, some of the games led to aggravation. One informant said she felt the car driving game Trackmania was “hard,” another called it “frustrating.” The adventure game Dreamfall also seemed somewhat problematic to control, and the logic of the puzzle game Crayon Physics did not seem to come intuitively to the testers. However, although these games provided some frustrations, in general the games were met with positivity and humor. It is also worth noting that the women did not have evident difficulties with any of the three other titles that were tested.

In the individual game testing session conducted in March 2009, a similarly varied response was found. Gears of War and Skate seemed to frustrate the tester, whereas three other, not necessarily easier, games seemed to be met with enthusiasm, competitive urge and willingness to overcome difficulties, as the tester struggled to get better at them even though she was allowed to stop at any moment. This was mirrored by the other informant who seemed to describe herself as a ‘game player.’ This informant stated that one of the requirements for her dream game was that it should provide “tough challenges” that do not “insult your intelligence.” In other words, ease of use and providing a challenge might both be important to the general appeal. One informant stated this quite eloquently, pointing out that the reason New Super Mario Bros worked so well was that the developers had managed making “even the hard tasks easy.” This is in the line with the videogame
industry rule of thumb that games should be ‘easy to learn, hard to master.’ It should perhaps not come as a surprise that this seems to apply to women as well.

According to Kaveri Subrahmanayam and Patricia M. Greenfield (1998: 51), girls tend to find violent content (notion 2) in games ‘boring.’ This result did receive some support in my study. Generally, violence was not mentioned particularly much unless I brought it up as part of the questioning. One informant remarked that it was obvious that “some” games, “like Grand Theft Auto and stuff” were violent, but she did not put much emphasis on this. In the Grimstad group, however, one informant emphasized that non-violence was key to her enjoyment. She stated that as long as the game provided “aesthetics, nice music and non-violence” she would be interested. On the other hand, she said, if videogames had “too much blood, and heads falling off, and blood flowing out” she would lose interest. It is however important to note that some of the younger women listed completely contradictory preferences, listing violent, and even very violent games, as games they liked to play. Examples of such games were Resident Evil 5, Bioshock and Tekken. One informant even told us that what she enjoyed about the first Grand Theft Auto game was having the ability to ‘destroy columns of cars with the flamethrower’ (a fire-emitting weapon in the game). Moreover, instead of working with the game’s missions, she said she found it “a lot more fun to just run around and be nasty.”

6.1.2 SOCIAL CONTEXTUALIZATION AND NARRATIVE

In the list of ‘feminine’ design elements, notion 4 posits that social context and narrative could help videogames appeal to women (Laurel, 1998: 122–123; Graner Ray, 2004: 54–56). However, the men and women who answered the survey did not differ in their desire for a story (figure 5.6). Furthermore, the results show that the participants did not find the ability to ‘get to know clients’ particularly important (figure 5.7). Contrary to our assumption, the men and women did not differ in whether they found getting to know the in-game clients to be important.

In section 4.4.4, I noted how Brenda Laurel emphasized the importance of having ‘more than one character’ (1998: 122) and making games about ‘figuring out the right thing to do’ (ibid: 123). This led to a prototype that offered the player dramatic agency through making choices (see section 4.7). However, the testers’ reactions towards the ‘socialized,’ ‘dramatized’ context of the prototype (notion 4) were ambiguous. On the one hand, one woman made a point out of how the unpredictable reactions the game provided, made her want to see ‘what happened next.’ However, three of the four prototype testers showed little interest in the story aspect of the game, and the way the game’s goals were contextualized by characterization and dialog. One informant said that it was “good that [the story and characters] were there,” although she also said that she preferred to do what she wanted, and would rather ignore the clients.

During the individual interviews, some women made a point out of the appeal of a ‘good story’ whereas most did not. Similarly, the women in the Grimstad group did not mention any narrative-
driven games when they presented their previous experiences with videogames. However, as we played the opening sections of some narrative-driven games together, several of them expressed enthusiasm and interest, and one informant said that she would like to buy one of the games we tested based on what she had seen.

6.1.3 GAME CONTEXT: REALISTIC OR FANTASTICAL?
When the women were asked about whether a more realistic setting, notion 5, would make a game more appealing, the informants did not provide many clear answers. One informant said that games that offered “some kind of reality that is recognizable” would be more interesting to her than “pure fantasy stuff.” However, other informants were clear that both fantastic and realistic settings had their purpose: One informant even said that she thought escapism was an important part of videogames’ appeal, noting that “the fantasy aspect is probably what’s gonna get people into it.”

In the game testing sessions, opinions on this matter diverged. Whereas with the game Dreamfall, the fantasy aspects of the story (a ‘looming’ cloud and a somewhat sinister and mystical mood in the introductory sequence) were described as uninteresting by some of the informants, the just as fantastical Myst IV: Revelation did not result in the same response—instead it was described as “exciting just to look around.” One informant said that she felt the difference between the two was that the latter “seemed a bit more cheerful,” hence also “pleasant.”

The prototype testing session was also contextualized with the testers as an experiment with realism, since it was based on interior design concepts such as styles and color schemes. One informant praised how the game could help you ‘get skills in’ interior design, thus also referencing utility as discussed in the next subsection. Another informant said that she enjoyed fantasy-style games, but that she also loved playing “that kind of game [represented by the prototype]” because the “scenario could be real.”

6.1.4 OUTSIDE OF HYPOTHESIS: ENTHUSIASM, UTILITY AND SOCIAL AFFORDANCES
Some tendencies in the data material concerned ideas that were not integrated into the operative image of ‘feminine’ game elements as listed above. Primary among these was the data that indicated that videogame are entertaining women, a notion that was made invisible in our initial research because of the way the research question was understood. One informant said that although she only played once every other week, she could sit with her DS for up to four hours. Another informant gave a similar account, stating that she played videogames “for, I don’t know, for long” because she “got really excited” and “wanted to go on and on.” She contrasted this with periods where she did not play “for a long time.” Another informant called herself a “Freecell expert,” clearly taking pride in the notion.
Additionally, the interviews indicated that utility was a desirable quality in videogames. One informant said that if she did not “learn anything from playing” there was “no point” in doing it. Another informant mentioned how the exercise game Wii Fit made more sense to her than most games, because it “to a certain extent” had “both aim and purpose.” This was independently mentioned by another informant as well, who noted that she’d be interested in games if they could “provide real competencies” and emphasized the need to feel “enriched” after playing. Similarly, in the survey, several noted that they would like to use our game to plan their own apartments and houses.

In the Grimstad workshop, both in the introductory conversations and through the game testing sessions, the social affordances (Norman, 2002) of the game experience were also emphasized. One informant described how a primary quality of the Buzz series was how the games allowed players of all ages to participate, thereby providing an experience the family could share. Similarly, after a session of four-player Wii Sports Tennis matches, several of the informants expressed their interest in the social nature of the game, and praised the ability to “do something together.”

This kind of social platform was also to some extent discussed in the London group interview and some of the individual interviews. Several informants told us that they tended to play when together with friends, boyfriends and cousins, implying that providing social facilitations and focus was attractive. However, social affordances in videogames were not part of the questions for these interviews, and were not discussed explicitly.

6.1.5 DISCUSSION: GAME DESIGN AS A SITE OF MALE POWER?

Interaction design literature often focuses on ‘understanding the user’ (Preece et al., 2002: 73–104; Dix et al., 2004: 197–201) and ‘the user’s needs’ (Patnaik and Becker, 1999). This was the background for my early understanding of the design situation—by likening ‘needs’ to ‘preferences,’ and understanding the user of the videogames to be ‘the player,’ the situation seemed straightforward: It was a case of finding out what kinds of elements women were attracted to, and then designing a game with these elements. Could it be simpler?

The informants were a diverse group where few characteristics could be said to be common to them all. It was clear that the interviewed women generally did not describe themselves as heavy game players, and that they generally did not claim to own games and game equipment aside from multifunctional devices such as computers and mobile phones. Based on the data that was collected, one might suggest certain avenues that could prove popular with women, such as videogames that provide social affordances or utility in some form. However, most of the notions of what constituted to ‘feminine’ game elements, as detailed in section 4.4 (e.g. Brunner et al, 1998; Graner Ray, 2004; Turkle, 2005; Hartmann and Klimmt, 2006), were contested by my study. Moreover, as I attempted to contrast some types of design approaches with others during interviews (for instance, ‘Do you
prefer fantasy or realism in videogames?’), the informants tended to point out that both options had value and appealed to them, thus resisting the simple user model that my questioning suggested.

By its emphasis on videogames’ need to take ‘women’s preferences’ seriously, the first perspective was grounded in radical feminist narratives on male power. In internal design discussions, my co-worker and I developed an understanding of videogames as a site of patriarchy, and forceful arguments such as the numerical dominance of men in design and development (see e.g. Gansmo et al, 2003a: 17; Bergström, 2006: 31; Skillset, 2006: 14) helped establish the notion that the current videogame design practice was yet another site of gender inequality. Although I have not disproved this notion (if such a thing is possible), my study has shown that if current videogame design practice is a case of discrimination of ‘preferences,’ it is not trivially disentangled. Through the analysis of game testing sessions and interviews, I have shown that few of the assumptions about ‘feminine’ preferences were left uncontested. Furthermore, the game testing sessions, wherein we presented a variety of videogames (see section 3.5.3 and 5.3), more often than not seemed to result in enthusiasm with the testers. This suggests that products exist on the market today that are successful with women (if/once they try them), and that the issue may be in part the lack of knowledge of the videogames that are available. In fact, some of the informants of the Grimstad workshop suggested this themselves, noting that they had become interested in buying several of the titles in the course of the evening.

6.2 How do women relate to videogames, as a concept, and in play situations?

The ‘search for preferences’ that characterized the first perspective did not produce many pragmatical results—based on the empirical study, it was not a straightforward matter to conclude ‘do this, and the game will appeal to women.’ However, the data that was collected also contained a range of information that did not seem to concern preferences directly. Noting that this was the case, I started to look for other meanings, both in existing data and as a part of the planning of subsequent research activities. This second perspective is the focus of this section, in which I will discuss how my informants described their relationships to videogames. In the discussion, I combine Ernesto Laclau and Chantal Mouffe’s ideas of subject positions as discursive points of identification within discourses (2001) with Judith Butler’s concept of gender performativity (1990, 1993, 1995, 1997). The discussion thus focuses on the informants’ positioning strategies as related to identified discourses, as well as on how gender is performed through negotiating videogame play situations.

6.2.1 Discursive distancing from ‘wasting time’

The most common story the informants told was that videogames represented a ‘time sink.’ “Having the time” was depicted as the “problem with games.” Many informants told us that they did not tend to have much free time in the everyday. One informant said: “If I end up having some free time once
a year, I play some Solitaire,” echoing another, who stated that if she played a card game, it was because she had “nothing else to do.” Several informants also used the term “waste of time.” These utterances were often followed by the notion of a ‘lack of utility’ in some form. One informant contrasted the games she played, which were educational (and therefore useful), with the “time-wasters” played by her children. Another stated: “It’s all wasted hours on me. What do I get out of it? I get nothing out of it!” Yet another of the women said that she thought by playing videogames, the player’s head was “filled with so many useless things.”

These and other utterances made visible a small set of intertwined discourses that were common among the informants:

- ‘Videogames take a lot of time’
- ‘Videogames are a waste of time’
- ‘Videogames should be useful or educational’

Many informants described these discourses as related to each other. One informant called videogames a “waste of time,” noting that if she first started a game, it was “in order to learn something.” This informant gave an example of a game she liked, an online educational title about geography. She asked, “Why did I like it? Because I felt I did something useful, at the same time as I was having fun. I learnt something, and I could put it away after five minutes, because that was the time it took.” In this way, small time requirements and educational value were used as ‘discursive leverage’ to argue that this game was not included in her general description of videogames as a ‘waste of time,’ and all three discourses were included in the same argument. However, not all informants positioned themselves within all three of these discourses. For instance, one of the more active testers told me that if she had been “14 years old” again—if she had had more free time—she said it was likely that she would have liked to play *Prince of Persia* (the 2008 version), whereas in her current situation it was described as less likely. Thus she agreed that videogame playing was a question of ‘having the time’; however she did not utter anything that suggested a position within the latter two discourses.

This perceived lack of spare time was reflected in how the women spoke about the time they had for games. When discussing long-form, story-based videogames, one informant argued that she was more likely to sit down with a game she could be “quickly done with,” rather than one she had “to keep up with.” Another informant emphasized that if she were to “play something, or do something,” she would like “to finish it” and not have it as a pressure, “something that needed to be done,” the day after. Yet another gave the impression that her days tended to be too stressful to have room for games. After the game testing session of *Myst IV: Revelation*, a story-based adventure game, one informant said that she found the game appealing, but that she thought about it as something to do “during Christmas holiday”—thus it was not deemed fit for the everyday.
Control over one’s own (leisure) time has been a central site of feminist work for a while. Eileen Green (2001: 179) points out that although the amount of time that is available for leisure tends to be more or less equal for women and men (in the UK), there are “major differences” in the way this ‘free time’ is used. She writes that women’s leisure is “more interrupted, fragmented and less relaxing than that of men” (ibid). Furthermore, a UK survey indicated that women spent more than one and a half hour more time per day than men on housework (UK Time Use, 2000).

These utterances and statistics suggest that there is a link between being an adult woman and having more pressure on one’s free time. According to Hanne Haavind, this is exactly what is at stake. She writes:

*My argument is that all the talk about time is an attempt to keep gender out. By way of all the references to the ‘lack-of-time’ [Norwegian: “tidsklemma”] that guide us, gendered relationships are neutralized. The two of a couple are affected by something outside of themselves. […] When we talk about time instead of gender, it is not an accidental misunderstanding. It has the function that conflicts between women and men in couples are neutralized. (2006, my translation)*

In other words, the contemporary focus on ‘lack-of-time’ masks that this also concerns gender norms and values. In a Butlerian perspective (1990, 1993), the norms and values that constitute womanhood thus include restrictions that state that simply sitting down for some ‘egocentric’ joy with a videogame is less acceptable. To an extent, my study supports this view, as several of the informants made a point out of how seldom they played games. One stated, “maybe, once every other month,” another described that it was “about once a year.” One of the informants even explained that “we do not allow ourselves to sit down and play. To an extent, we are more ‘we need to tidy up the house and get all the other stuff done,’ so that it is kind of a bit lazy to sit down to play.”

### 6.2.2 THE QUESTION OF ‘OWNING’ THE PLAY SITUATION

In the previous section, I demonstrated how ‘time use’ and ‘waste of time’ were used as arguments that might have masked gendered power relationships. However, this was not the only possible power relationship that was uncovered. Another interesting discourse was the one that concerned the ‘ownership’ of the play situations.

The majority of the informants described themselves as ‘secondary’ players or ‘non-players.’ In their stories of play situations, most of the informants contextualized their playing as related to someone else, such as male friends, romantic partners or the informant’s children. This performance was made especially visible by the way some of the younger informants, in spite of their own openly stated enthusiasm for, use of, and knowledge of games, still did not describe themselves as ‘game players’ and still contextualized their play with male friends and boyfriends. In this manner, the informants positioned themselves ‘on the sideline’ of many play situations.
However, alternative stories were told as well, sometimes by the same women. In these stories, the videogame situations were described with terms that signaled a clearer sense of pride and self-interest; the women told stories such as how *Backgammon* was something they had ‘played since childhood,’ how *Freecell* was an area of ‘expertise,’ or how one informant liked to play *Bioshock* because of its “cinematic” aesthetic. Two women in the study furthermore positioned themselves as ‘game players’ to a greater extent than the rest. One of them did this by stating that she was “good for a girl,” listing a vast array of games that she liked to play, whereas the other gave detailed descriptions of the genres that she tended to like, such as horror games and role-playing games, naming examples such as *Resident Evil 5* and *Suikoden*. These experiences were not contextualized as experiences ‘with other persons’; instead, they were the informants’ own.

What is interesting is that for an overwhelming number of the stories the informants told, the interest they expressed for the experience of play seemed to be related to the ownership they described having, both of the play situation and of the game technology. For instance, among the Grimstad women, the ‘on the sideline’ positioning was most often related to situations where the informants’ children wanted help or participation from their mother, typically on videogame consoles and handhelds—whereas the more ‘in-charge’ positioning strategy, on the other hand, involved playing alone on the computer. Furthermore, the two women who positioned themselves as ‘game players’ both owned videogame consoles or handhelds themselves.

Of course, it is impossible to say based on the collected empirical material whether it was the lack of interest in certain types of games that led to lack of ownership, or the other way around. However, what is worth noting is that this pattern—that women are not seen as the primary owners of ‘fun’ technology—is not new. Cynthia Cockburn and Susan Ormrod (1993: 112) elaborated the ways in which the ‘brown goods’ department of electronics shops were gendered. The ‘fun technology’ was gender-coded as masculine—thus the symbolism of color and placement in the shop worked to establish norms and values of performative practice (Butler, 1990, 1993), inscribing the ‘fun’ technological competencies as ‘masculine.’

Presuming that these norms exist for videogame technology, one possible way to perform femininity could be to position oneself as technically incompetent. Some informants did this, giving statements such as “I don’t have a clue about videogames” and “I don’t even know how to turn it on!” Looking at the totality of information that was gathered, however, both through interviews and game testing sessions, the competencies the women described (and displayed in testing) with videogames seemed to vary considerably. Some situations seemed to lead to frustration, whereas others resulted in triumphant smiles and competitive desire. As such, even if some informants might have performed womanhood by displaying incompetence with videogames, it seemed that this was not the only way to do so.
6.2.3 TO ‘GROW OUT OF’ VIDEOGAMES

Many informants also told stories of how they had ‘used to’ play games at some point in the past, but that this had become less frequent or stopped altogether. One informant said: “I should have continued with it. I wish I did, because I think games are amazing. But you kind of lose the habit, I think.” Another informant described how she used to play “a lot” when she was a teenager, although this was “not so much anymore.” Through these positioning strategies, these informants may be understood as having placed themselves within the discourse that ‘videogames are for children and teenagers’—thus it might be more acceptable for girls and teenagers to play videogames, than for adult women. In the ‘womaning of the woman,’ to paraphrase Butler (1993: 7), the norms thus might dictate that videogames should ‘fall by the wayside’—that videogames are something one ‘grows out of’ as part of the process of becoming an adult—and perhaps, specifically as part of the process of becoming a woman.

This understanding was supported by many statements throughout the interviews. One informant described that she was surprised to find internet articles stating that “women, adult women” played games, contrasting the surprise to the observation that the ‘younger generation,’ exemplified by her 20-year-old-daughter, played games. She said that she thought this younger generation ‘had it more in their blood.’ In the same vein, two of the informants who claimed to hardly play games at all, said that they had tried the games Pac-Man and Space Invaders in the 80s when they were girls and teenagers—and that they had found these games “fun” and “bloody brilliant” respectively. Similarly, another informant told us that she used to play “a lot” when she was “eight or something,” whereas now, she ‘didn’t know, no.’

6.2.4 UNHEALTHY “BOYS’ PLAY” VERSUS SOCIAL FAMILY PLAY

It was not common among the informants to use their own gender to explain their positioning strategies. However, some informants described an ‘unhealthy’ image of how videogames related to boys and men. One informant noted that her “boys’ games” were “time-wasters.” Another informant described her “bloke” as a “computer game freak,” noting that he owned “every single console on the market.” She lambasted how videogames created “a generation of kids that do not want to leave the house” and asked how these kids were “ever going to learn how to interact with other human beings.” Another informant stated that when she thought about videogames, she envisioned “all these young boys who use time on it, as a somewhat unhealthy way of passing the time.” This, she said, was “not an aim [for her] to resemble.” A third informants explained that when her boyfriend was “a little boy” you could be “a computer game nut, but still have a life” and stating that the problem with videogames was not that women did not like them, but that ‘to most women, videogames meant unavailable boyfriends.’

In these ways, the informants described negative connotations connected to being a ‘game player.’ However, other informants positioned themselves in a competing discourse, explaining how the social reality of videogames allowed families to have fun together. Stories about how Buzz allowed
the whole family to play together, or how Singstar was “great fun” with other adults made clear that the informants had quite differing views on the social value of videogames. It was also clear that for some testers, the social affordances provided by certain titles were a major draw that could not be matched by games played alone.

6.2.5 CONCLUSIONS

I have shown how the informants described a host of diverse ways to relate to videogames and videogame play situations. Although most of the informants did not call themselves ‘game players,’ the vast majority of them described game situations they had enjoyed in some form. ‘Videogames take a lot of time,’ ‘videogames are a waste of time,’ and ‘videogames should be useful or educational’ were identified as important discourses, whereas ‘videogames are for children and teenagers’ was less clearly defined, although many stories concerned how the informants had played more in younger years.

In addition to the common ‘on the sideline’ stories, in which the informants positioned themselves as ‘secondary players,’ many women also described their ‘own’ play spaces, typically with games such as Freecell, Backgammon and Solitaire—’physical’ card and board games. However, some of the informants went further in establishing their own, diverse ways to enjoy games, and included action games, horror games and role-playing games as their ‘own.’

T. L. Taylor (2008: 54) points out how both the location of play and the ownership relationship of the PC or console are crucial to the way women interact with games. This was supported by my study, which found that when the informants described play sessions and experiences as ‘their own,’ the context was most often implied to be a ‘personal’ computer or console, rather than one belonging to somebody else.

6.3 How do conceptions of gender relate to the design process?

I have looked at the first and the second of my research perspectives—first considering the ‘internal’ aspects of ‘preferences’ in game design, and then the ‘external’ aspects of social context. In this section, I will discuss the main research question: “What does it mean to ‘design for women’?” I will first discuss the merits of the two applied perspectives, in subsection 6.3.1 and 6.3.2 respectively. I will then describe my own positions and reflections about how gender shapes the design process, based on the number of concepts I have established in this thesis, in subsection 6.3.3.

6.3.1 FIRST PERSPECTIVE: TO DESIGN FOR ‘WOMEN’S PREFERENCES.’

The first perspective stated that to ‘design for women’ is to design for ‘women’s preferences.’ I have come to see this as a troublesome notion on several levels. First, as my study has shown (section 5.2
and 6.1), such ‘preferences’ do not seem to be a straightforward matter. Although conceptions and research exist on how women in general have certain ‘preferences’ in games and entertainment (see section 4.4), my inquiries did contest this material on a number of fronts, and often provided self-contradictory data—that is, some women liked what others disliked. Although these data may not comprise a crisis for the statistician looking for tendencies and correlations, they do for the interaction/game designer who does not want to stigmatize certain users as being ‘lesser women,’ and they destabilize the view that there is a ‘feminine’ way of preferring.

Inspired by Justine Cassell (2002: 402), it is further worth noting that by establishing a videogame design (sub)discipline ‘for women,’ the designer risks ghettoizing women “as a population that needs ‘special help’ in their relation to technology” (ibid). In my view, this is the provocative aspect of the prototype that was constructed as part of this thesis. By itself, there is little ‘wrong’ with social contextualization of game goals (e.g. ‘helping’ a game character), or non-violence, or tidy explanations of use. Rather, it is through the labeling of the game as ‘feminine,’ thus more suited to ‘women’s tastes,’ that the design becomes truly problematic. Although we claimed to design it ‘for women’ generally, in effect, the game expects a very specific kind of woman to sit in front of the screen. In this, the design not only stigmatizes women who do not like the game, it stigmatizes men who might find the concept appealing as well. This is analogous to my own insecurities about wanting to play with Barbie dolls (see the foreword), and more generally, archetypical of all the processes that go on in society by which artifacts and concepts are given gendered discursive value.

However, the moment we remove the label of ‘a game for women,’ most of this stigmatization disappears. Because of this relationship, I find good reason to question the usefulness of the idea—‘designing for women’s preferences’ itself.

Moreover, if we follow Judith Butler’s notion that gender is not static but dynamically (re)assigned by constitutive citational practices, and that there is no essential ‘gender identity’ on which gender is based (1990, 1993), ‘designing for women’s preferences’ becomes a conservational practice. By seeing gender as performative, it becomes possible to question and challenge the norms and values that constitute gender because gender itself is always in the process of becoming. If we accept this view, it is in the designer’s power to influence the development of these norms and values, by way of the designed artifacts that are brought into the world. For instance, Merete Lie (2003b: 275–276) claims that The Sims promotes a radical view of gender to its millions of users by providing a character creation system that does not connect gender to any of the other aspects of the character’s personality. Thus, she argues, “personal qualities are not connected to gender,” a model Lie calls the ‘empty shell.’ It might be worth adding that this is by no means unique to The Sims. It has long been unfashionable to let gender affect statistical characteristics of characters in videogames. However, the outer characteristics of the bodies still contain gender politics, as described by Cornelius (2008: 71–75).
One argument in favor of the rhetoric of ‘women’s preferences’ is that in an industry where the ‘masculine’ is hegemonial, by refusing to place emphasis on the values and ideals typically seen as ‘feminine,’ including ‘women’s preferences,’ an invisible process of devaluation could result. For example, one could theorize that the relative lack of videogames that concern ‘making social choices’ leads to a situation where videogames as a whole tend to teach the ‘masculine’ ideal of antisocial conflict resolution to players. This rhetoric is based in certain traditions of feminism which state that there is a set of ‘female’ characteristics, values and beliefs that are important, and therefore need to be exalted and defended, such as ‘nurturing’ (e.g. Evans, 1995: 76–107). However, such values can be considered important independent of gender connotations, and may be an avenue worth exploring, if nothing else, then in order to find new ideas and approaches to videogame design.

6.3.2 SECOND PERSPECTIVE: TO DESIGN FOR THE SOCIAL CONTEXT OF USE

The second perspective concerned the social context of women’s play, as I asked how “women relate to videogames, as a concept, and in play situations.” I concluded in section 6.2 by noting that the women positioned themselves in many different ways, within or outside of a series of identified discourses, which related videogames to concepts such as ‘wasting time,’ ‘children and teenagers’ and ‘utility.’

Some of these discourses can be understood as providing hints towards what is ‘wrong’ with current videogames, at least according to the perceptions described by informants. For instance, the designer might decide to make her or his videogames useful or educational, and to give the impression that they will not take more than five minutes to play. However, in making such an interpretation, the same problems apply as described in subsection 6.3.1: instead of challenging the norms that connect technology to ‘masculine’ images of the “computer game freak” or the “boys’ games,” the designer might feel tempted, as we did in the thesis’ design project, to construct an ‘alternative’ discipline with ‘feminine’ symbols and values in order to communicate that this technology is ‘allowed’ for women. Again, one risks treating women as a population with ‘special needs’ (Cassell, 2002: 402), and also as a uniform group, even though gender researchers have suggested that pluralistic understandings are needed (Lie, 2003b; Wajcman, 2004: 112; Janson et al., 2007). By doing this, the unwanted social practices and discourses on women and videogames may prevail, thus perhaps limiting the possible expressions and interests for the individual.

One approach that was suggested by the informants themselves was to look at the information that is available to women about videogames. After the main testing session, one of the testers said she ‘had no idea these games existed,’ and noted that she considered buying several of the titles that she had tested—perhaps the main ‘problem’ with getting women to play games was not that they did not ‘dare’ to play, but that they did not know what and why to play. Although a wide range of available information on current and upcoming videogames exists in magazines and on web sites today, the tester was not aware of this, thus this may be seen as an issue of information visibility and accessibility.
THE GENDERED DESIGN PROCESS: A QUESTION OF POWER

Concluding this chapter, it is worth pointing out how the design, research and software construction processes have all been gendered at each and every step of the way.

The first step, as two male researchers, was to assume power to define the problem. The problem was, we agreed, that ‘women did not play games’ to the same extent as men. With this assumption, we became part of a historical tradition in which women have been seen as ‘imperfect men,’ failing to ‘live up to’ the standards set by men, measured by men’s metrics; the zeroes instead of the ones, the ‘unmarked’ gender. Although I have argued in the introduction that I believe videogames to be a new medium which should be enjoyed by everyone (section 1.4), using oneself as the standard by which to judge others is fundamentally an act of arrogance—these ‘others’ which are being judged may not agree at all with the standard that is used, and they may justifiably have a problem with being defined as ‘coming up short.’

The study has shown that women do play videogames—almost every informant described playing on a regular basis, although the frequency varied considerably, from yearly to several times a week. In the interviews, many of the informants said that they tended to play for an hour or an hour and a half—one informant even stated that she could keep at it for four hours. However, in the initial phases of the project, the idea was to get women to play games in the same manner as ‘game enthusiasts’—that is, they should be interested in immersive, long-form experiences like those promoted in videogame shop windows. In this way, we used our definitional power not only to ask for more frequent play, but to ask for a specific kind of play, tailored by traditional videogaming ideals. This is not necessarily inherently wrong, but it is undoubtedly an example of the definitional power we have as designers.

In the next step, we were designers. In establishing the vision and working with the operative image (chapter 4), a host of new gender presuppositions came into play, such as what women would ‘like,’ what they would ‘find fun’ and so on. Although these presuppositions were extended and criticized through reading literature, the fundamental assumption of the prototype design remained that women were different from men and that this difference was a problem; more specifically, a design problem to be solved by creating a game ‘for women.’ Similar performances of the privileged male researchers were also part of the survey process, the interviewing, the workshop and the game testing sessions—in each and every part of the process, me and my co-worker’s positions were privileged; we already ‘understood’ games, thus we did not have the problem our informants were assumed to have.

Finally, through assuming the position of analyst, I also assumed a form of definitional power, not only to describe what was said, but what was meant and thought. The theories of discourse and performativity lend the analyzer no favors in this respect; they allege to make visible the underlying social structures and mechanics that shape discourses and practices, thus bereaving the research
subjects of considerable agency, and (although perhaps just temporarily) reducing them to ‘tokens’ of the analysis, instead of people.

These are the privileged subject positions with which I felt increasingly uncomfortable as the project proceeded. Whereas they may not be as problematic in practice as I made them out to be in the above, the gender analyses of the literature that went into this thesis has changed my perspective on the world to the extent that I find it hard to imagine how it could be possible to involve myself with future design problems and analyses without intuitively and instinctively reading them for all manner of gender connotations.

If academia involves sacrifice, the loss of innocence is one such sacrifice: I am unsure whether I will ever be able to see the world as not fundamentally gendered—again.
7 CONCLUDING REMARKS

In this thesis, I have asked: ‘What does it mean to design for women?’ I have described my approach to this question as consisting of three perspectives.

The first of these perspectives, which concerned the ‘preferences’ of women in videogames, provided few ‘answers,’ although some suggestions did result. In chapter 3, I described the methods I used to help answer the question, in chapter 4, I described the design process that was a practical attempt to design a game for these preferences, and in chapter 5 I presented the related findings. Finally, chapter 6 discussed the findings thematically. The main finding of the research on preferences was that if current videogame design practices are fashioned to suit men’s ‘preferences’ more than women’s, this is not trivially disentangled. Through the analysis of game testing sessions and interviews, I showed that few of our assumptions and ideas about ‘feminine’ preferences were left uncontested, and that the women generally expressed appreciation for a variety of games and play styles.

With the second perspective on the research question, I studied the relationship between the women and the contexts of use/play. I did this by interviewing women, and by observing game testing sessions. The findings of this perspective were somewhat more conclusive than those established with the first; I have demonstrated how the informants positioned themselves in a variety of ways in relationship to videogames. I divided the positioning strategies in three: those wherein videogames were related to the informants’ children, those wherein videogames were related to other adults (mostly male), and those wherein videogames were related first and foremost to the informant herself. I also identified central discourses about how ‘videogames are a waste of time,’ ‘videogames should be useful or educational,’ and ‘videogames are for children and teenagers.’ Some informants used their gender to explain and describe their relationship to videogames. However, many informants also refrained from this positioning strategy.

Finally, in attempting to answer the third perspective to the research question, I presented my reflections on the validity of the ‘preferences’ approach, the applicability of the ‘context’ findings, and finally, how the entire process could be understood as gendered.
7.1.1 FINDING THE ‘RIGHT’ RESEARCH QUESTION
The thesis project could be characterized as a site of tension.

Whereas the initial premise—to design a game ‘for women’—was understood as a relatively ‘straightforward’ design problem, wherein an ‘audience’ was seen as ‘defined’ and a set of preferences (or even predispositions) were to be ‘mapped,’ what emerged was a much richer picture than what had originally been envisioned, as many of these assumed ‘preferences’ seemed to get increasingly intangible, or even indefensible.

This could be understood as a crisis of sorts, and in my experience, two possible ways to proceed became evident in the situation. On the one hand, I could try to the best of my abilities to answer the original formulation (“women’s preferences”) on the basis of the original assumptions, even if I did not agree with these assumptions any longer. Alternatively, I could ‘start from scratch,’ using the collected data to establish a new research question formulation.

Because my process was already well underway by the time this crisis was identified, I chose to do both. On the one hand, I did not desert the original research formulation entirely, as the possibility of such ‘feminine’ preferences, even if they were artifacts of discourse and performative gender, were still relevant to the overarching research question, which asked what it meant to ‘design for women.’ However, by reframing this original formulation as one out of several perspectives, I also gained some distance to it. As a designer increasingly aware of the accountability of design situations, this distance was needed in order for me to be able to proceed with some sense of coherence between my own convictions and my design actions.

7.1.2 REFLECTIONS ON GENDER-AWARE DESIGN
Interaction design and videogame design are part of the ongoing discussion of what society should look like. This thesis has concerned gender as one aspect of this ongoing discussion. I have come to understand gender not as eternal or essential, but rather as being in a constant state of renegotiation. This perspective has given way to an understanding of gender and technology as co-constructed. Because the meanings of gender and the meanings of technology are discursively negotiated and thus continuously reconstructed, other perspectives and understandings of these terms are possible than those that are dominant today.

However, the design situation that has emerged from these perspectives has shown itself to be more complex than I imagined. In section 6.3.1 and 6.3.2 I tried to draw conclusions for future design projects based on what was learnt in my study. However, this was not a simple task: to design for ‘preferences’ was understood as problematic, but to design for ‘context’ was not straightforward either. Thus somewhat disappointingly, although I have come to the end of a large, experimental design project, and although much has been learnt, the design situation itself looks considerably more complex now than it did a year ago. Oh, bother.
However, I will attempt to draw some general conclusions.

First and foremost, to develop a sense of gender-awareness involves attaining knowledge on what gender is, how it can be interpreted, understood—and thus misunderstood.

Second, this gender knowledge needs to be supplemented by a certain amount of modesty, self-awareness, and self-reflection. This is doubly true for somebody in my position as ‘male designer’ who designs ‘for women.’ Armed with theories like Judith Butler’s ideas on performativity, it might at times seem tempting to believe that one has ‘all the answers’—however, as always, this is unlikely.

Thirdly, the understanding that gender can take on numerous meanings, and that there may not be a ‘correct’ interpretation, nor a ‘true’ femininity or masculinity to reference can be understood as a resource in design, instead of a limitation.

Because of this, however, ultimately the ideal of gender-aware design demands the designer to take a stance; to shape her- or himself a vision of what kinds of gender relations s/he would like her or his design to aspire towards.

Finally: Whenever possible, avoid defining the ‘target audience’ or ‘prospective users’ in terms of their gender, like we did.

7.1.3 FUTURE RESEARCH

As part of the thesis project, I missed having a neutral source of detailed data on the demographics of gender and videogames. Whereas SSB (2009) did a good job of providing such data in a Norwegian context, and I take BBC (2005) to be a reliable source, the fact that many books in this area references ESA (2009) means that good, public data is hard to come by. If such data could be produced for several countries, this would be of particular interest not only to me but to games research across the globe.

Considering the kinds of research that were conducted for this thesis, several of my findings have been somewhat constrained because of how the methodological approach was at times somewhat spontaneous in nature. More comprehensive studies to confirm or reject my findings would therefore be of interest.

From a practical design perspective, it was clear that our efforts to involve the users were lackluster, and that the choice of using high-level prototypes such as our software prototype was not suited to truly explore the design possibilities. Instead, the design ‘fixated’ on the ideas that had been established early on, and the technically demanding aspect of the process further accentuated this fixation. It would therefore be interesting to see future projects use the paradigm of participatory design to involve players directly in the design process. Such projects should focus on rapid, low-level prototyping to allow for better communication between designers and players.
7.1.4 DIGITAL DREAMS

Interaction design is about designing interventions—it is about intervening to change the situation as it is. For computer systems of the kind that are installed and used in work situations, this is often given—the reason the interaction designer becomes involved is because the situation is considered in some way to be less than ideal. However, with videogames, the interventions that are provided may be less reflected upon and wanted—some may claim they only create games ‘to be fun.’

In the old days of videogames, this argument may have had some credibility—although philosophical debates can be had on the compulsions of Tetris, there may be limits to the cultural meanings that can be derived from the practice of stacking blocks. However, today’s videogames are, very often, cultural products on a whole different level from those that went before. By their choices, their challenges, their sense of place, their play, their learning, their drama, their theatre, their vacations, and their spectacles, videogames are marvels of possibility. They are—digital dreams.

...

For the first time, we are able to construct our own dreams.

So what do we want to dream about?
APPENDIX A: SURVEY QUESTIONS

Age

- 0–19
- 20–29
- 30–39
- 40–49
- 50–59
- 60–69
- 70+

Gender

- Female
- Male

How do you play video games?

- (Select all that apply.)
- On websites offering games and other entertainment
- On my PC or Mac, as a stand-alone application (e.g. Minesweeper, The Sims)
- On iPhone
- On other mobile phones
- On Nintendo DS
- On Nintendo Wii
- On PlayStation 2
- On PlayStation 3 or Xbox 360
- I don’t play video games

How long do you usually play for?

- 5-20 minutes
- 20-60 minutes
- More than an hour
- I don’t play games
How important is the following in a game about interior design/home improvement? (Not at all 1 2 3 4 5 Very)

- The opportunity to express yourself creatively
- The opportunity to pursue a career as an interior designer/home improver within the game
- The opportunity to get to know clients and other contacts
- Feedback from the game regarding your level of skill and how you can improve
- The opportunity to learn something about interior design, home improvement and decoration
- A clear feeling that you progress in the game
- The possibility of creating and decorating your dream home
- The opportunity to exhibit your work online, via for instance Facebook, MySpace or your blog
- The opportunity to rate and talk about other players' interiors online, and compete for a virtual 'interior of the year' award
- The opportunity to have other players collaborate with you in designing interiors

How do the following styles appeal to you?

- (List of visual styles, see section 5.1)

What sounds more appealing to you?

- The ability to cultivate one or a small number of styles and to become a specialist in their application
- Full freedom to mix and match a variety of styles, regardless of whether they traditionally fit together or not

Do you prefer to assume an established role, or do you want to create one yourself?

- Play an established character
- Build my own character

How much would you be willing to pay for a quality game about interior design/home improvement?

- Has to be free
- Up to about $15, £10 or €12
- Up to about $30, £20 or €25
- Up to about $60, £40 or €50
- I wouldn't play it either way

Would an exciting story make the game more interesting to you?

- Yes, I think stories make games more fun
- No, I think stories distract you from the main game experience
- Unsure/don't know
What kind of setting(s) would you find especially exciting in a game about interior design/home improvement? (Select all that apply.)

- You're non-commercial, helping your friends to improve their homes
- You start out as an ambitious freelancer in the field of interior design/home improvement, and work your way to the top
- You're part of a small business consisting of enthusiastic coworkers
- You play a professional interior designer employed at a design bureau, where you're part of a team
- You're the chief of and manage your own interior design/home improvement business empire
- You play a design guru and are able to define fashions and trends
- You're in charge of a TV team that makes a program on interior design/home improvement
- You play a magazine reporter who reviews and judges the works of other designers
- You play an interior photographer and will be judged on how good your photos are
- You have a group of friends from different professions and social backgrounds, who meet in cafes, restaurants or in each other's homes

Optional: What does interior design mean to you? Do you see it as a hobby? A creative and fulfilling long-term project? As a pastime – or maybe it's your work?

- [ Open text question ]
APPENDIX B: TALKING POINTS,
NOVEMBER INTERVIEW

These were the talking points of the November 19th group interview in London.

- Relationship to videogames
- Relationship to other media
- Brainstorming/participatory design session on a game about interior design
- Ideas and wishes for an interior design game
- Storytelling opinions and ideas for story structure in the game
- Creativity in games
### APPENDIX C: WORD ASSOCIATION SHEET, JANUARY WORKSHOP

*(In Norwegian)*

<table>
<thead>
<tr>
<th>Norwegian</th>
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<tbody>
<tr>
<td>Lettfattelig</td>
<td>Målrettet</td>
<td>Uklare mål</td>
</tr>
<tr>
<td>Fargerikt</td>
<td>Klare regler</td>
<td>Uklare regler</td>
</tr>
<tr>
<td>Humoristisk</td>
<td>Klare mål</td>
<td>Lite humoristisk</td>
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<tr>
<td>Spennende</td>
<td>Følelsesladd</td>
<td>Dårlig musikk</td>
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<tr>
<td>Morrismt</td>
<td>Oversiktlig</td>
<td>Kløneter</td>
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<tr>
<td>Underholdende</td>
<td>Fin musikk</td>
<td>Usammenhengende</td>
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<td>Avslappende</td>
<td>Flinkt</td>
<td>Tvetteid</td>
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<td>Kreativt</td>
<td>Smart</td>
<td>Glorete</td>
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<tr>
<td>Tidsfordriv</td>
<td>Helhetlig</td>
<td>Grått og trist</td>
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<td>Plausibelt</td>
<td>Dårlig stemmeskuespill</td>
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<td>Nyttig</td>
<td>Tiltalende figurer</td>
<td>Pinlig</td>
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<tr>
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<td>Godt stemmeskuespill</td>
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<td>Lærerikt</td>
<td>Overfladisk</td>
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<tr>
<td>Omfattende</td>
<td>Tiltilsvekkende</td>
<td>Ensformig</td>
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<tr>
<td>Valuta for pengene</td>
<td>Lett å lære</td>
<td>Krevende</td>
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<tr>
<td>Sosialt</td>
<td>Fengende</td>
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<td>Inkluderende</td>
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<td>Trygt</td>
<td>Kjedelig</td>
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<td>Misvisende</td>
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<tr>
<td>Brukervennlig</td>
<td>Komplisert</td>
<td>Vanskkelig å styre</td>
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<td>Fostrer fellesskap</td>
<td>Stygt</td>
<td>For lite å gjøre</td>
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<td>Engasjerende</td>
<td>Dyrt</td>
<td>For mye å gjøre</td>
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<tr>
<td>Koselig</td>
<td>Utydelig</td>
<td>Vanskkelig å lære</td>
</tr>
</tbody>
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APPENDIX D: INTERVIEW QUESTIONS, PROTOTYPE TESTING

1. Age / Name

2. The prototype
   ▪ How was the use experience?
   ▪ What did you like about it?
   ▪ What did you not like about it?
   ▪ Have you tried something similar before? In that case, how would you compare that with this prototype?

3. How often do you play videogames:
   ▪ On a computer
   ▪ On a handheld
   ▪ On a mobile phone
   ▪ On a console

4. If you play, how long do you tend to play on average?

5. How much would you be willing to pay for a quality game?

6. If you buy games:
   ▪ How many have you bought?
   ▪ Why do you buy games?

7. Discussions:
   ▪ Stories/characters in games
   ▪ Learning value of games
   ▪ Real concepts versus fantasy concepts
   ▪ Are games ‘worthwhile’?
   ▪ Violence versus non-violence
   ▪ Do games take too long to play?

8. How do you spend your free time except for games? How do other media engage you?

9. Are you interested in interior design?
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All URLs were tested 8/24/2009.