Taboo to Mainstream: An Industrial Design Solution to Sex Toy Production

Judith Glover

Submitted in fulfillment of the requirements for the degree of
Doctor of Philosophy
Swinburne University of Technology March 2013
Abstract

Despite the plethora of feminist and sexual history literature that addresses issues of current and historic marginalization of women and the literature that specifically addresses women’s sexuality, little work has been done to discuss or develop female-centric sex toys. Sex toys are not a topic one will find in the canons of design history. These products, lacking in authorship, are difficult to find within standard hagiographies of famous designers or design companies.

Nonetheless, sex toys and their precursors have been manufactured in their millions for over 150 years. Surveys show sex toy consumers are more likely to be females, yet historically women have only been able to access products that are either socially camouflaged as medical or home appliances, or the male-centric products of the pornography industry of the late 20th century. Even at the end of the 20th century the mass produced products of the adult industry still display Victorian attitudes and understandings of female sexuality. The product genre, affected by commercial and social marginalization, operates in a vacuum of health, safety and design standards that is commonly applied to other product categories.

In this thesis I argue that the use of industrial design processes and methods in the development and marketing of appropriate female-centric sex toys has the capacity to make sex toys a socially and commercially mainstream product. I argue that, in doing this, not only will greater opportunities be opened for such products to exist outside the retail environments of the adult industry but competition and innovation will create a variety of solutions more aligned with a contemporary understanding of female sexuality across a broad range of demographics and psychographics.

In this thesis I review theory relating to mass produced objects and their socio-cultural meanings to develop understandings of the current dominant aesthetics and conventions of sex toys that keep the industry marginalized from respectable commerce. These understandings are used to inform the design and evaluation of a female-centric sex toy artifact and brand. In the thesis I also document a number of
other new sex toy producers using industrial design processes, methods and standards to create products that differentiate themselves from traditional and historical pornography conventions. Seeing this as evidence of a distinct commercial trend, in the thesis, I develop a final argument for using changes to this product group as reflecting contemporary socio-sexual zeitgeist.

In this thesis, I ultimately position sex toy design and manufacture within the industrial and product design field, showing that by using industrial design processes and methods the genre can and should be designed and manufactured using standards equal to those for other commercial product genres. Arguing the application of these process and methods brings competition and innovation to the industry and develops safer, higher quality and more varied product with a contemporary understanding of female sexuality.
Acknowledgements

I am extremely grateful to my supervisors, Associate Professor Deidre Barron and Ms Kate Bissett-Johnson for their advice, editing and continual support. The following people I would like to thank for either helping me with the thesis or the development of Goldfrau. Thank-you to Professor Lyndon Anderson for allowing me to start this project at the Faculty of Design and Professor Ken Friedman for supporting its conclusion, Associate Professor Margaret Zeegers for the final editing, Ms Jill Glover for proof reading a whole draft, Ms Bridgette Engeler Newbury for advice on branding, Dr. Nicole Sallabank for giving me advice at a critical time, Gordon Turnbull for years of research support at the Swinburne Library, and all the academic and administrative staff from the Faculty of Design who have been supportive, encouraging and curious. The design project of this thesis, Goldfrau, had been greatly aided by the following people, Andii and Ariel at Pandarosa, Chris, Claire, Max, Fifi, Doug and Sue at Clayworks, Dominique Hall, Jelle at J Su Misura, Dr. Elissa Mailänder, Kirstin Knorr, Alice Byrne, David McDonald, Jess Hill, Kate Hannaford from Melbourne Design Festival 2006, Dr Laurence Power for years of support, and Jen, Bo, Billie, and Dan who helped with the events. Lastly, thanks to my family—Mum, Dad, Keith, Margee, Brook and Amelia for giving me quiet spaces to write.
Student Declaration

This thesis contains no material which has been accepted for the award to the candidate of any other degree or diploma, except where due reference is made in the text of the examinable outcome; to the best of the candidate’s knowledge contains no material previously published or written by another person except where due reference is made in the text of the examinable outcome; and where the work is based on joint research or publications, discloses the relative contributions of the respective workers or authors.

Judith Glover
# Table of Contents

## Chapter 1—Introduction

Understanding the problems of sex toy production  p. 1  
The research question  p. 4  
The significance  p. 7  
Background to Project  p. 9  
Timetable and scope of project  p. 11  
Placing of this topic within the Design field  p. 14  
A summary of sources and method  p. 18  
Structure of Thesis  p. 31

## Chapter 2—The Historic and Current Taboo Nature of the Sex Toy Industry

Historical Background: Sex Toys and the Adult Industry  p. 48  
Pornography Debates and Morality Wars  p. 51  
Examples of Legal Restrictions and Censorship  p. 61  
Common Product Standards and Safety  p. 68  
Summary  p. 71

## Chapter 3—Symbols and Conventions of Adult Industry Sex Toys

Sexual and Health Survey Evidence  p. 76  
Summary of Sexual Survey Information  p. 87
The Adult Industry—is it Male-centric? p. 88
The Size and Scope of the Sex Toy Industry: Traditional Networks and Future Trends p. 92
Symbols and Conventions of Pornography: as Evidenced in Adult Industry Sex Toys p. 100
Adult Industry Conventions Reflected in Sex Toy Production p. 105
Phallus Objects p. 106
Body Parts p. 107
Novelty Products p. 107
Techno Styles p. 108
Aliens p. 109
Simplified Products p. 109
Pornography Conventions in Sex Toys p. 110
Evidence of a Shift toward Female-centric Products and Services p. 115
Summary p. 121

Chapter 4—From the Victorian Medical Vibrator to the Adult Industry Recreational Sex Toy p. 167
The Victorian Vibrator Industry p. 169
Hysteria Treatments and the Androcentric Model of Sex p. 171
Victorian Attitudes to Female Sexuality p. 178
Gender Representation and Sexual Politics through Consumption p. 182
From Medical to Beauty Device: the Demise of the Victorian Vibrator Industry p. 186
Vibrators and Sex Toys 1930-1970s p. 189
Shifts in Sexuality across the 20th century to the Sexual Revolution
Effects of the Sexual Revolution on the Adult Industry: Sexual Liberation, Feminism and the Establishment of the First Female-centric Retailers
Summary

Chapter 5—The Relevance of Industrial Design Methods and Processes in the Production of Sex Toys as exemplified in the Thesis Design Project Outcomes of Goldfrau
Industrial Design Process and Why is it Important to Thesis Outcomes
Research Design Project: the Goldfrau Brand
Target Market Considerations
The Importance of the Reflective Consumer
Project Brief: Product Design and Product Values
Branding: the Goldfrau Project
Project Outcomes: Creating Identity and Product Branding through Design, Placing Goldfrau in Events and Retail Outside of the Adult Industry Networks
Project Outcome 2: Events Outside of Adult Industry Networks
Melbourne Design Festival July 2006
Paris Lingerie Fair (International Salon de la Lingerie) February 2008
Project Outcome 3: Retail Outside of Traditional Adult Industry Networks
Summary
Chapter 6 — Trends in the Next Generation of Sex Toy Producers and Female-centric Retailers 2000-2011

Changes in Sex Toy Design and Consumption in the New Millennium

Discussion of New Product Design Companies and Sex Toys

New Generation Product Development Late 1990s-2011

Attributes and Examples of Product Company Trends

Retailers: The Growth of Female-centric Retail Environments


Attributes of the Female-centric Sex Store Retailer

Summary

Chapter 7—Exploration of Socio-cultural and Economic Trends for Western Females Since 1970s Explaining Conditions for Changes to Sex Toy Production and Retailing in the Decade 2000-2011

Technology and Domestic Porn

Parallels with the Growth of Women’s Erotica

Technology and the Domestic Environment

Sex Toy Machines and Feminist Masturbation Discourses of the 1970s

Talking about Sex in the New Millennium: Raunch Culture, Pornification and Porn Chic
The Female Consumer in the New Millennium: the Female Consumer and the ‘Female Economy’ p. 411
Consumers, Brand Culture and Design Culture in the 90s p. 418
Sex and the City: Mixing Raunch Culture and Designer/ Brand Culture p. 424
Summary p. 434

Chapter 8—Analysis of Chapter Findings and Conclusion p. 445
Answering the Aims of the Research Questions p. 445
Contribution to New Knowledge p. 454
Limitations of Research p. 458
Further Research p. 459

References p. 463
List of Figures

**Figure 1.1.** Typical example of Adult Industry sex toy, Phallus type  p. 41

**Figure 1.2.** Julier’s Domains of design culture diagram  p. 43

**Figure 1.3.** Visual comparison of products—Victorian Vibrator, late 20th century Adult Industry novelty dildo, and early 21st century industrial design influenced vibrator  p. 45

**Figure 3.1.** Images from Berlin Venus Trade Show 2008-2009  p. 125

**Figure 3.2.** Examples of Beate Uhse Corporate Branding mid 200s to 2011  p. 127

**Figure 3.3.** Examples of Adult Industry websites—depictions of females used in branding within proximity to promotion of pornography 2008-2009  p. 129

**Figure 3.4.** Examples of Adult Industry websites—depictions of females used in branding within proximity to promotion of pornography 2009  p. 131

**Figure 3.5.** Overview of Adult Industry sex toys, late 20th century to early 21st century  p. 133

**Figure 3.6.** Examples of Adult Industry sex toys, Phallus type, late 20th century to early 21st century  p. 137

**Figure 3.7.** Example of Retro-themed Vibrator  p. 141

**Figure 3.8.** Examples of Adult Industry sex toys, Body Parts type, late 20th century to early 21st century  p. 143

**Figure 3.9.** Examples of Adult Industry sex toys, Novelty type, late 20th century to early 21st century  p. 147

**Figure 3.10.** Examples of Adult Industry sex toys, Techno type, late 20th century to early 21st century  p. 151

**Figure 3.11.** Examples of Adult Industry sex toys, Alien type, late 20th century to early 21st century  p. 155

**Figure 3.12.** Examples of Adult Industry sex toys, Simplified type, early 21st century—reflecting influences of new Industrial Design trends  p. 159
Figure 3.13. Examples of packaging and branding of sex toys for female consumers from Adult Industry providers p. 163

Figure 3.14. Examples of Adult Industry sex toys, mid 1970s p. 165

Figure 4.1. George Taylor’s steam powered ‘Manipulator’, circa 1860’s p. 209

Figure 4.2. Weiss battery-powered vibrator by Mortimer Granville, 1883 p. 211

Figure 4.3. Butler’s Electro-massage machine, 1888 p. 213

Figure 4.4. Chattanooga Vibrator, 1900 p. 215

Figure 4.5. Hanging-type of Carpenter vibrator, 1904 p. 217

Figure 4.6. Clinic for treatment of hysteria, New York, 1904 p. 219

Figure 4.7. Example of Interwar Vibrator—Health and Beauty device. p. 221

Figure 4.8. Example of Interwar Vibrator—Health and Beauty device. p. 221

Figure 4.9. Example of Interwar Vibrator—Health and Beauty device. p. 221

Figure 4.10. Example of Interwar Vibrator—Health and Beauty device. p. 223

Figure 4.11. Example of Interwar Vibrator—Health and Beauty device. p. 223

Figure 4.12. Example of Interwar Vibrator—Health and Beauty device. p. 225

Figure 4.13. Example of Interwar Vibrator—Health and Beauty device. p. 225

Figure 4.14. Example of Vibrator 1970s—Health and Beauty device p. 227

Figure 5.1. Goldfrau Brand mark p. 269

Figure 5.2. Goldfrau Miss White p. 271

Figure 5.3. Goldfrau Miss Pink and Miss Saigon p. 273
Figure 5.4. Goldfrau Miss Penny  p. 275
Figure 5.5. Goldfrau Leather Wrap  p. 275
Figure 5.6. Goldfrau Website Homepage  p. 277
Figure 5.7. Example of Goldfrau visual branding  p. 279
Figure 5.8. Example of Goldfrau visual branding  p. 281
Figure 5.9. Example of Goldfrau visual branding  p. 281
Figure 5.10. Goldfrau point of sale graphic  p. 283
Figure 5.11. Goldfrau Event Poster—shop graphics  p. 285
Figure 5.12. Goldfrau Product Brochure cover  p. 287
Figure 5.13. Image Montage of Goldfrau Product launch—Melbourne Design Festival 2006  p. 289
Figure 5.14. Goldfrau Stand at Paris Lingerie Fair 2008  p. 291
Figure 5.15. Goldfrau Stand at Paris Lingerie Fair 2008  p. 293
Figure 5.16. Goldfrau Stand at Paris Lingerie Fair 2008  p. 295
Figure 6.1. Examples of design trends from new generation sex toy producers 2000-2010  p. 347
Figure 6.2. Examples of design trends from new generation sex toy producers 2000-2010  p. 353
Figure 6.3. Examples from Candida Royalle’s sex toy brand Natural Contours  p. 359
Figure 6.4. Examples from Myla’s range of sex toys, 2002  p. 361
Figure 6.5. Examples from Philips range of Massagers for couples 2008  p. 363
Figure 6.6. Example of Philips Massager displayed on corporate website  p. 365
Figure 6.7. Examples from Funfactory’s sex toy brand  p. 367
Figure 6.8. Example of We-Vibe II and technical detail  p. 369
Figure 6.9. Examples from Emotional Bliss—Sexual Health Vibrators p. 371

Figure 6.10. Examples from Lelo’s sex toy brand p. 373

Figure 6.11. Examples from Jimmyjane’s sex toy brand p. 375

Figure 6.12. Examples of media coverage from Jimmyjane Website—health, design, fashion, business and popular press p. 377

Figure 6.13. Examples of Web pages and branding for female-centric sex store retail environments p. 379

Figure 6.14. Examples of Web pages and branding for female-centric sex store retail environments p. 383

Figure 7.1. Female Economy Diagram—Harvard Business Review p. 439

Figure 7.2. Example of mood board—Nokia, circa 2000 p. 441

Figure 7.3. Comparison of Nokia mobile phones from late 1990s to mid-2000 p. 443

Figure 8.1. Comparison of late 20th century Adult Industry dildo with early 20th century Industrial Design influenced dildo p. 461
List of Tables

Table 3.1. Summarised statistics on sex toy practices from Richters, Grulich, de Visser, Smith, Rissel (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—ratio of males to females p. 80

Table 3.2. Summarised statistics on sex toy practices from Richters, Grulich, de Visser, Smith, Rissel (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by age group p. 80

Table 3.3. Summarised statistics on sex toy practices from Richters, Grulich, de Visser, Smith, Rissel (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by education levels p. 81

Table 3.4. Summarised statistics on sex toy practices from Richters, Grulich, de Visser, Smith, Rissel (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by occupational classification p. 82

Table 3.5. Summarised statistics on sex toy practices from Richters, Grulich, de Visser, Smith, Rissel (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by household income p. 82

Table 3.6. NSHS survey 1995-96—breakdown by age group p. 83

Table 3.7. NSHS survey 1995-96—breakdown by income and educational status p. 84
Table 3.8. NSHS survey 1995-96—breakdown by marital status or sexual orientation  p. 84

Table 3.9. Comparison of collected sexual surveys—breakdown by year, male and female demographics  p. 85
Chapter 1

Introduction

In this chapter I explain the historical and contemporary problems with sex toy production. I outline the research question and sub-questions that I will use to present an argument which I address in the design and written components of this thesis. I also address the significance of the research questions and the gaps in existing knowledge. I explain the sources and knowledge fields I draw on in my research and why it was appropriate to position this project in design research and industrial design practice. Last, I explain the structure of the thesis in relation to the content and knowledge of each chapter and how that contributes to developing both and argument for addressing the problems of sex toy production, and then a solution through industrial design process and methods.

Understanding the problems of sex toy production

As the title of this thesis suggests, the sex toy industry sits outside of what may be considered respectable commerce (Comella, 2008a; Hewson & Pearce, 2009; Hewson & Pearce, 2011; Kent & Brown, 2006; Klein, 2006; Perdue 2002; Rubin, 1984; Schlosser, 2003). Nonetheless, sex toys and their precursors have been manufactured in their millions for over 150 years (Anderson, 2006; Hewson & Pearce, 2011; Maines, 1999; Perdue 2002; Taylor, 2002). Surveys show sex toy consumers are more likely to be females (Durex Global Sex Survey, 2005; Hewson & Pearce, 2009; Hewson & Pearce, 2011; Rye & Meaney, 2007; Richters, Grulich, de Visser, Smith & Rissel, 2003). This theme is developed in Chapter 3 by drawing on statistics that demonstrate a significant consumption of sex toys globally with a majority of female consumers (Anderson, 2006; Bergman, 2004; Biotech Week, 2004; Davis, Blank, Lin & Bonillas, 1996; Durex Global Sex Survey, 2005; Fetto, 2002; Hewson & Pearce,

Despite the predominance of female consumers, the sex toy industry does not have the types of marketing and advertising that frames and supports other female targeted industries like perfume, cosmetics or other so called feminine commodities (Hewson & Pearce, 2009; Hewson & Pearce, 2011; Kent & Brown, 2006). It is driven by the symbols and conventions of the adult industry and historical pornography as shown in Figures 3.1 to 3.14 and discussed and outlined in Chapters 2 and 3. It exists outside of respectable business or marketing (Comella, 2008a, Hewson & Pearce, 2009; Hewson & Pearce, 2011; Kent & Brown, 2006; Klein, 2006; Perdue 2002; Rubin, 1984; Schlosser, 2003).

Most examples of sex toys or their precursors from the last 150 years cannot be attributed to any particular designer or well-known product design company—they are without authorship. Those that still thrive today exist within the adult industry and are private companies (Perdue 2002; Schlosser, 2003). Any sort of use of celebrity to sell products revolves around porn stars and their body parts rather than the styling touch of a famous designer. Figure 1.1 is an example typical of the type of product that sex toys have become known by in the public consciousness, and central to understanding why sex toys are taboo at the end of the 20th century. These sex toys are rich in meaning, particularly when discussed and analysed alongside contemporary or historical issues of sexual politics yet little has been written about them.

These products are designed for the most private of human domains and as such they do not have the element of social status that has driven the consumption of most other product categories. For example, one does not park them in one’s driveway or wear them on one’s wrist; they are not for public display. Yet the few public production
figures available suggest that these types of sex toys have sold in their hundreds of millions of units in the last 30 years of the 20th century (Anderson, 2006; Hewson & Pearce, 2011; Perdue 2002; Taylor, 2002).

Sex toys and their precursors are products, and as such they can be discussed in relation to technological innovation or manufacturing techniques or commercial imperatives and ownership of production and distribution networks. I use these frames to discuss the product genre as developed from (Julier, 2008) in Fig 1.2. I also argue that the development of this genre has been affected by socio-cultural sexual taboos more than by technology or manufacturing capabilities. It is a central theme of the thesis that the industry is and has been for the last 150 years reflecting a dominant western socio-cultural ethos of sexual control, outdated understandings of female sexuality and sexual taboos (Maines, 1999; Rubin, 1984).

I also argue that these long standing sexual notions affect the types of products made, where they have been sold, how they have been marketed, who owns the production and distribution, and their quality. I argue in this thesis that cultural issues have defined the products more than the technical capabilities of western product design and engineering. This becomes apparent when the historical and contemporary relationship between the sex toy industry and the adult industry is analysed in Chapters 2, 3 and 4.

From the late 19th century to the late 20th century the product genre has changed from a medical product to treat hysteria in the Victorian period (Maines, 1999) to a recreational product for enhancing sexual enjoyment in the late 20th century; from respectability within the medical profession (Maines, 1999) to a state of taboo with the adult industry (Schlosser, 2003; Storr, 2003). I argue that this taboo status has created a product mono-culture within the adult industry typified by a lack of innovation, competition, regulation (Klein, 2006; Rubin, 1984; Schlosser, 2003), with
design and production quality that is standard in other commercially acceptable product genres (Australian Competition and Consumer Commission Website, 2011). That is, it is this taboo nature of the product genre that has affected the variety, standards and quality of the products (Biesanz, 2007; Elimelekh, 2006; Klein, 2006; Lindemann, 2006; Rubin, 1984; Schlosser, 2003). I then propose that industrial design process and methods are central to bringing the product genre into line with the design, safety and production standards afforded other product genres.

**The research question**

If one accepts that there is a need to change the historic and current taboo on sex toys then the question arises of how this might be achieved. The research question then is: how might the sex toy industry go from being a socially and commercial marginalised activity with strong historical taboos to an industry that is publicly perceived as commercially mainstream? In addressing this question I ask a series of sub-questions throughout the chapters. Why, more than 40 years after the so-called sexual revolution of the 1960s and 70s, is sex toy consumption and commodification considered taboo? How has this taboo status affected the quality of outcomes for the consumer and why is this still a barrier to change? In what ways is/can design, particularly industrial design act as central to changing the social status of this industry? And why does any of this matter for the contemporary female consumer?

In addition to cultural questions addressed in my research there are questions of quality and safety in regard to the products materiality and function that need to be addressed. For instance, toxicology studies have shown high proportions of sex toys contain potential carcinogens or reproductive organ effecting chemicals (Biesanz, 2007; Greenpeace, 2006). Sexual health surveys, marketing and business articles (Anderson, 2006; Bergman, 2004; *Biotech Week*, 2004; Davis, et al, 1996; *Durex Global Sex Survey*, 2005; Fetto, 2002; Hewson & Pearce, 2011; Kent & Brown, 2006; Perdue 2002; Taylor, 2002; Richters, et al, 2003; Rye & Meaney, 2007) show
women to be the majority of sex toy consumers across a wide variety of socio-economic groups yet the research will outline sex toy production as a sub-industry of the adult industry with its traditional male-centric focus.

This is not an anti-pornography position. It is not a judgment on the right of the industries involved in the making of non-violent pornography like films, magazines and sex toys to exist. In regard to sex toys, it is an observation that will be outlined through this research that the majority of the sex toys produced and sold in the last four decades were done so through the retail environment of the adult industry, particularly in the United States, Europe and Australia, and little alternative than adult industry retail environments has existed for female consumers (Hewson & Pearce, 2009; Hewson & Pearce, 2011; Kent & Brown, 2006). This relationship, I argue, has had a profound effect upon the type of product produced, in these products cultural and material manifestations, which does not reflect the varied contemporary female consumer.

In my research I concentrate on analyzing products for female consumers. Statistics of sexual surveys looked at in Chapter 3 identify females as the majority of consumers globally (Durex Global Sex Survey, 2005; Rye & Meaney, 2007; Richters, et al, 2003). My research focuses on the two biggest product categories of vibrator and dildo production, for female consumers. I have specifically chosen to analyse this section of the market as being both a female consumer and designer puts me in a position to question the market from a female-centric perspective. This is not to say that products for male consumers are of any better quality. Any design, safety and manufacturing quality issues that apply to female products also apply to male products (Biesanz, 2007). Where products for male consumers are mention is used to highlight general conventions about adult industry products and to show men’s products are also open to reinterpretation using contemporary design methods as well.
At this point I should clarify the use of terms female-centric and male-centric in relation to the artifacts and practices discussed in this thesis. These terms are central to the answering why the product genre of sex toys is still taboo which gives rise to my proposition that industrial design processes and methods can play an important role in altering this. Chapters 2, 3 and 4 detail a male-centered bias in sexual practice and knowledge from the Victorian era to the present. Understanding that historical sexual culture (or ethos) is important because of the way it has influenced the artifacts that were produced by the adult industry in the second half of the 20th Century. The thesis details that, while there are large changes in understanding female sexual psychology and physiology across the second half of the twentieth century, these changes do not flow through in any great way to the adult industry. There are exceptions which can be identified in maverick companies like Good Vibrations or Candida Royalle that were started by women to offer alternative products and services, as detailed in Chapter 4. These chapters detail the ways in which the male-centric bias of the adult industry has persisted and the affect that the sexual ethos of the industry has had on present products and services which, despite being directed at contemporary women, misses its market. In Chapters 5 and 6 I detail what a female-centric brand could look like through the use of industrial design processes and methods. It does this by putting contemporary female users’ needs at the center of the design considerations. I argue that these companies’ products and services constitute a more contemporary female perspective. Again, this is not an anti-porn position rather I take on a marketing position and description. It is beyond the scope of this thesis to examine whether women do or do not like to consume adult industry products; rather the focus is that there has been a lack of competition and innovation in the market place. This is now being addressed and the new companies documented in Chapters 5 and 6 do offer alternative brands based on design processes that put contemporary female consumers at the center of design considerations.
The significance

Answering such questions above matter because sex toy consumers interact with these products in the most intimate and physical ways. Aesthetics aside, consumers should be guaranteed a level of safety and suitability in line with other mainstream product genres such as personal hygiene or grooming products. Product manufacturing and material standards exist for a broad range of consumer categories but not for sex toys (Australian Competition and Consumer Commission Website, 2011). The industry remains highly unregulated across the globe in relation to defining and ensuring adequate manufacturing standards (Biesanz, 2007). Particularly in the western world, regulation amounts to long standing obscenity laws in certain conservative jurisdictions (Elimelekh, 2006; Klein, 2006; Lindemann, 2006; Rubin, 1984; Schlosser, 2003). The obscenity laws are about imposing long standing sexual controls over the public’s right to access and use sexual commodities. The effects of these obscenity laws are to further push the industry into the unregulated shadows. That is, such regulation is not about public, in particular female, health and safety in relation to product and material standards.

At the very least, I argue, consumers should be aware of the potential risks involved with using sub-standard products (Biesanz, 2007) or be able to discriminate between levels of quality. My research links the overarching taboo status of the global industry with the lack of legal product safety standards and product disclosure by manufacturers and distributors. Conversely, I also argue that increased product standards brought about by appropriate industrial design methods outlined through the design project of the thesis, will create a shift in public and commercial perception away from the industry’s long standing taboo status, encouraging greater competition, standards and transparency.

At the beginning of the 21st century this should simply be a technical issue about product standards. Sex toys are not rocket science. They are technically no more
complex than electric toothbrushes. The production on the whole ranges from traditional craft techniques modified for batch or mass production, to standard mass production techniques of plastic injection molding and silicon casting. Internal componentry rarely goes beyond a motor, a battery, some buttons, a small amount of wiring and perhaps a small printed circuit board containing a microprocessor. Some products are without moving parts at all. However, as my research will show, sex toy production, its standards and its aesthetics, are affected by the socio-cultural state of taboo surrounding the industry more than the technical capabilities of the product design and manufacturing industry at the beginning of the 21st century.

It needs to be noted that this thesis is not just a historical investigation or a socio-cultural perspective; it is an applied design research project. My intention is to position the genre of sex toys within the product design field from a practical design perspective to explain and encourage adequate design, material and manufacturing standards for consumers. Industrial design methods and processes are central to this research and I demonstrate that these can be used to develop alternative commercial solutions to historical and current adult industry product.

As previously stated this is not just a technical exercise of how to make a better sex toy, as my research will show that long standing socio-cultural notions and sexual ethos are embedded within current sex toys and their precursors re-enforcing taboos and affecting sex toy outcomes. These, I argue, must be identified and addressed in developing alternative design solutions. My research takes up the position that; as designed artifacts, sex toys, are embedded with the socio-cultural notions of the societies that made them (Forty, 1986; Lupton, 1993; Spark, 1995; Sudjic, 2008) and that designed artifacts have the potential to change socio-cultural perceptions by embedding a different range of values in any products. In the research design project, I have developed a range of artifacts for sex toy consumption that I argue reflects an
alternative range of values to the standard late 20th century adult industry product that is outlined and documented in Figures 5.1 to 5.15 in Chapter 5.

**Background to Project**

An initial project was conceived in the Honors year of my Bachelor of Industrial Design degree in 2002. It was in a theory and design studio where I attempted to understand the premise of why sex toys were taboo, and how being taboo affected the types of products in the market place. In that research I started to examine the structure of the adult industry and the nature of taboo and censorship of sex toys. From that research I designed a prototype which was then produced with the help of a production ceramicist, and was presented for examination in 2001. Subsequently, these were refined and became the first Goldfrau products and put onto the market in 2006. I wanted to expand on my initial findings that longstanding socio-cultural sexual ethos affected the outcomes of the mainstream adult industry rather than current manufacturing technologies, which led me to develop the project into both a marketable brand and a PhD topic. The secondary research and historical analysis required a deeper investigation and it was not enough for me to propose a conceptual solution—a prototype. The only way for me to establish whether my ideas/designs were marketable, by presenting products with clear and distinct differences from adult industry product, was to produce, promote and enter the global market place.

To be clear about what this thesis is presenting for assessment: it is not the development of the original prototypes or the actual product design itself. This was done as early as 2001 to 2002. What this thesis is presenting for examination is the knowledge drawn from the design of a product, company identity and the exploration and journey of that product onto the commercial market place. It is also about the branding of these artifacts to deliberately support the product values. In addition, it is a documentation of relevant milestones and experiences and an analysis of where that
sits within broader socio-cultural-economic frameworks of the sex toy industry and emerging commercial trends.

As this journey progressed I became aware of a range of other companies, producers, distributors and retailers that were attempting to do similar branding—that is question and re-configure product and retail outcomes in line with a contemporary understanding of the female consumer. I reasoned that since we do not all personally know each other, that broader socio-cultural, economic or technical forces were at work, and I became interested in investigating and documenting this shift in sex toy production and commodification. My growing understanding was that sex toy production and commodification was influenced more by socio-cultural factors than technological ones. This I have documented in Chapters 6 and 7. My research has developed since its beginnings in 2004 from a historical analysis to understand why and how the adult industry came to dominate sex toy product at the end of the 20th century, the taboo nature of the industry, the effect on the types of products produced and a potential design solution for example to address these issues. There has also been a documentation of the real-time unfolding of a dramatic change in sex toy production through the influence of a new group of producers using similar methods to myself that my research has identified—the commonality of which is the use of industrial design process and methods. I argue that my business can be seen as part of an emerging phenomenon of cultural change within sex toy production that centres on industrial designers creating distinctly different products from traditional adult industry providers by putting the contemporary female consumer at the center of the design process, as opposed to the historical male-centric symbols and conventions of pornography.

An important element I argue in the training of industrial design is being able to articulate the products end users (Best, 2010; Bürdek, 2005; DIA Website, 2011; Kelly & Littman, 2000; Poggenpohl, 2009 Rhea, 2003; Valtonen, 2007) and develop
concept work around the investigation into their needs and requirements. What I felt as a designer was that the adult industry aligned sex toy producers generated a volume of product, with variations on a small amount of themes that I have discussed in Chapters 3 and 4. This revolved around the historical symbols and conventions of the pornography and the broader adult industry and not a focus on contemporary female users. In understanding that in all other product genres an extremely wide variety of target demographics and psychographics exist across a broad range of socio-economic groups, this was not reflected in the range of sex toys that existed at the turn of the millennium. From that initial project in 2001 I felt that there was an opportunity for the development of a wider range of products and brands that reflected a wider range of socio-economic female demographics and psychographics that exist across Western countries.

**Timetable and scope of project**

This research commenced in 2004. The initial first two years were concerned with gathering historical or background information that has contributed to the writing of the thesis and the organisation and development of the product brand and company identity that was launched at the Melbourne Design Festival in July, 2006.

From the initial Australian product launch in July, 2006, to the beginning of 2008, the research design project centered on the practicalities of positioning the products within the commercial arena, culminating in exhibiting the company and brand at the 2008 Paris Lingerie Fair. While it may be unusual for a research project to involve commercialisation of a product during the research process I felt it integral to trialing my design solution beyond a hypothetical prototype. That is, to trial that the brand artifacts developed for contemporary female consumers using industrial design process and methods could develop a niche market with the global sex toy market. I was suggesting there was a market for a higher quality product then ultimately only the market can validate this proposition.
After the Australian product launch at the *Melbourne Design Festival* in July, 2006, I sought entry to the international market. Despite the fact that the product was well received at the launch, the Australian market for high quality sex toys was, and remains, relatively small. By late 2006 Goldfrau was represented in the United States by the then wholesaling division of Good Vibrations and in early 2007 in Europe by the agency of J Su Misura run by Jelle Plantenga. Good Vibrations took the product line to the *AVN* show in Las Vegas in 2007 as part of their company promotions. I liaised with J Su Misura about what events were possible in Europe and was advised either to attend the *Berlin Venus* trade show or to apply for the *Paris Lingerie Fair (Salon International de la Lingerie)*. I investigated both options through their respective websites finding that both represent different markets with a distinctly different ethos.

*Berlin Venus* is a typical adult industry event. As discussed and shown in Chapter 3 it is geared to a male audience of pornography consumers where female participation is represented by pornography stars and strippers. I did not think that the ethos of *Berlin Venus* fitted the ethos of my brand, as I was attempting to create a brand to be perceived as high quality and female-centric, therefore the *Paris Lingerie Fair* presented as a better fit. My agent in Europe had been to both events and was a source of advice. I was both chasing the retailers who had started what I called female-centric stores and a possible new market into lingerie stores—an opportunity to reach female consumers outside of the networks of the adult industry. My agent confirmed that the sex toy retailers I were after visited both events—so if I chose the *Paris Lingerie Fair* I was not going to miss out on meeting them. The *Paris Lingerie Fair* was starting to allow exhibits from high-end sex toy producers but the product would have to go before a review panel. I reviewed the material available about both events and felt the Lingerie Fair fitted far more closely with Goldfrau branding. I also favoured the opportunity to be exhibiting as part of a group of new high-end
producers. Subsequently, Goldfrau exhibited at the 2008 Paris Lingerie Fair (see Figures 5.14 to 5.15).

The design project for the research covers the artifacts and experiences up to the Paris Lingerie Fair in 2008. The years since 2008, to the completion of the written thesis have been for further research, analysis and writing. In reference to Julier’s (2008) model of analysing artifacts (Figure 1.2) as discussed in Chapter 1, I argue it is also important that designers themselves research and write about the industries and artifacts they know and create. They have an understanding of the technological and production systems that create the mass-produced artifacts that surround us that could add to historical, cultural or media studies analysis of genres of artifacts.

Both elements of the research—the written documentation and the design project could have taken place independently of each other. As will be shown in Chapter 6, a number of other industrial design companies have started producing sex toys through industrial design processes and methods without the need to write, discuss and disseminate their journey through a research framework. The thesis could also have taken place without a corresponding design project and have been just as valid and interesting. The two elements together create a powerful argument of the validity of industrial design process and methods into this product genre in generating contemporary user-focused solutions and market innovation away from historical taboos.

Finally, I note that the Goldfrau brand and product was launched in July, 2006, and at that time was part of a small number of innovating companies (further documented in Chapter 6). In that context, most sex toys remain products within in the mainstream adult industry. No other sex toy company at the time had developed products using ceramics. Since then, several companies have been established using the material, or other companies have produced products using ceramics (Jimmyjane, Eric Scollon,
Coco de Mer, Lovemoiselle, Charles Duncan Designs and Shiri Zinn). It is not unusual in design and production that as new products and companies surface, others reference and iterate their ideas.

In Chapter 6 I document the development, in the first decade of the new millennium, of a new generation of production and retail companies developing products and services away from adult industry norms as a clear commercial trend (Hewson & Pearce, 2009; Hewson & Pearce, 2011). Within that context the documentation of Goldfrau demonstrates that in producing the product and branding artifacts that are part of this research, Goldfrau has been an innovator in these new commercial trends that sees sex toys interacting with broader socio-cultural movements around contemporary understandings of female sexuality. The Goldfrau project is a practical design example of this, the physical embodiment of the socio-cultural and technological changes outlined in this research; and the written thesis is the framework that brings both design artifacts and knowledge together into a coherent whole.

**Placing of this topic within the Design field**

As outlined at the beginning of the chapter the research for this thesis is an example of applied research. The Australian Research Council definition of Applied Research refers to ‘Original investigation undertaken in order to acquire new knowledge but is directed primarily towards a specific, practical aim or objective’ (Australian Research Council Website, 2011, Glossary, Applied Research). That is, my research investigates a range of existing knowledge from diverse fields such as history, sociology, cultural studies, marketing, design history and industrial design practice within the area of socio-cultural western attitudes to female sexuality. My research brings together existing knowledge to an argument never discussed with the design field at research level—that of sex toy design and production. A literature search will show that no research or peer reviewed articles exist that place the genre of sex toys
within design knowledge fields—either historically or practice based. I apply existing knowledge about attitudes to female sexuality to sex toy production and design and create a new body of knowledge within the design field. My research also has the specific aim of using the design process, particularly industrial design, to create a new set of artifacts in sex toy production that, I argue, will be perceived as socio-culturally not taboo.

For the purposes of this research it has been important to look at the socio-cultural history of concepts of female sexuality and the ways in which that plays out into the production and consumption of mass produced goods (Attfield and Kirkham; 1989; Buckley, 1989; Forty; 1986; Lupton; 1993 Sparks, 1995; Summers; 2001), in particular sex toys or their precursors (Maines, 1999; Juffer, 1998). It has been important to look at the current sex toy industry as part of the greater adult industry and the way that not only the symbols and conventions of the adult industry embed into sex toys, but how the production, distribution and retail networks of the adult industry also affect sex toy commodification (Comella, 2008a; Dines, 1998; Kent & Brown, 2006; Kipnis, 1996; Klein, 2006; Jensen & Dines, 1998; McClintock, 1992; McIntosh, 1992; McKe, Albury, & Lumby, 2008; Nead, 1992; Perdue 2002; Rubin, 1984; Segal, 1992; Schlosser, 2003; Vance, 1984; Williams, 1989; Williams; 2004a). It has also been important to look at the taboo nature of pornography (Dines, 1998; Hunt, 1993; Jensen & Dines, 1998; McKee et al., 2008; McClintock, 1992; Nathan 2007; Segal, 1992; Sigel, 2007; Schlosser, 2003; Williams, 1989) and the effects of regulation on sex toys, the effects of regulation on the accessibility of them and the effects of regulation on reputation of the industry (Biesanz, 2007; Elimelekh, 2006; Klein, 2006; Juffer, 1998; Lindemann, 2006; Rubin, 1984; Schlosser, 2003).

The issue of sex toy commodification could have been investigated without a practical design research project, however, I argue the process and methods of design and industrial design give the practitioner or industrial design researcher a set of skills
and knowledge to deconstruct the physical and technological qualities of mass produced objects that other fields other than product design engineering cannot or do not emphasis.

The literature from cultural studies which examines the exploitation of female consumers looks at this issue through the lens of the aesthetic meanings of the objects generated by a broader patriarchal structure (Attwood, 2005; Curtis, 2004; McCaughey & French, 2001; Heinecken, 2007; Smith, 2007). Industrial design knowledge can enhance those readings by adding that consumers are being potentially exploited by product that is unsafe, poorly made and not value for money.

In the cultural studies literature referring to sex toy consumption (Attwood, 2005; Curtis, 2004; McCaughey & French, 2001; Heinecken, 2007; Smith, 2007) there is an emphasis on the appropriateness of sex toys for particularly a female market that focuses on aesthetic meanings. I agree that aesthetics and symbolic associations with pornography are important to the public and commercial perception of the genre, but, I argue, the quality, safety and usability of the products themselves are important in establishing a need for change within this product genre. That is, the use of a pornographic aesthetic is only one of a number of design considerations to establishing both the full scope of the problem and a solution. I argue that industrial design knowledge can broaden the scope of arguments around sex toy commodification to enhance or build upon the visual or textual analysis of the above authors.

The methods and processes of industrial design are also central to developing an alternative set of artifacts. In the design component of this research I represent product and company brand identity as an exemplar that demonstrates practically rather than theoretically what those methods and processes can achieve (Downton, 2003). Chapters 2, 3 and 4 argue for the need for change in this particular genre,
generating an argument from existing literature and products. The research investigates the barriers or drivers for that change that are socio-cultural, historical, market driven or production orientated. I then use industrial design process and methods to describe a set of factors that I propose will develop change within the product genre and outline the design project as one example of the actual physical embodiment of that change.

I have used a model provided by design academic Julier (2008, p. 4) as shown in Figure 1.2 to describe the overall process of the research investigation—the interconnection between designer and knowledge. Julier describes a model for analysing what he calls design culture that differentiates it from other fields of study while at the same time potentially draws on many of these fields. He states an object, image or space (and I would add an industry or product genre) can be analysed using three key areas—consumption, production and designer. Under the heading of Consumption is demography, social relations, taste, cultural geography, ethnography and psychological response. Under Production he lists materials and technology, manufacturing systems, marketing, advertising, product positioning and distribution channels. Under Designer he lists education and training, ideological factors, historical influences, professional status and organization, and market perception. Julier (2008, p 5) states:

None of these three nexi of production, designers and consumption exists in isolation. They constantly inform each other in an endless cycle of exchange. Equally, they all individually have some influence to play on the form of objects, spaces and images. But these in turn are not neutral: they play an active part in influencing or making sense of the systems of their provision. Furthermore, contemporary conditions of production, design and consumption bring to the three domains ever closer so at times aspects of them may even overlap. It is the interaction and intersection of these domains and their
Julier’s diagram highlights the approach I have taken for the thesis. While I have analysed both the historical and present markets and products using concepts, information and theory from both consumption and production categories, a key argument of the research design solution is that the practices and methods of the industrial design profession (Best, 2010; Bürdek, 2005; DIA Website, 2011; Kelly & Littman, 2000; Poggenpohl, 2009 Rhea, 2003; Valtonen, 2007) are central to enabling a new type of sex toy product to emerge with different standards and semantics. This change is a result of the ethos and training of the industrial design profession globally that will be discussed further in Chapter 5.

It is important to clarify at this point that the Industrial Design profession or new types of artifacts or exemplars alone will not bring a change to the culture and standards of sex toy production. While the title of the thesis suggests it is important, as products are the material embodiment of values (Forty, 1986; Krippendorf, 2006), products exist within complex social and commercial systems (Julier, 2008). The thesis attempts to place product design firmly within greater cultural forces and examine the way it both pushes and pulls social change through the interaction with other industries such as ICT, media, pornography or fashion. The focus of chapter 7 explicitly discusses the underlying economic and social forces allowing for the development of new types of sex toy producers and retailers that are moving away from pornography symbols and conventions. As Julier’s diagram in Figure 1.2 shows artifacts exist within many tangible and non-tangible systems.

**A summary of sources and method**

Sex toys are not a topic one will find within the canons of design history. These products are lacking in authorship and difficult to place within standard hagiographies
of famous designers or design companies. There is an absence of literature in any
design history or design writing about sex toys except for a very small number of
articles in popular design journals (Design Week, 2001; Dowdy, 2005; Taormino,
2004; Stewart, 2004; Valhouli, 2001). While infrequent and small, articles by Dowdy
(2005), Taormino (2004) and Stewart (2004) start to discuss some of the emerging
issues and trends such as health and safety issues and the retail and design of sex toys
moving away from adult industry norms.

Within the design history field there is a range of authors that could be drawn upon to
consider an argument that mass produced objects embody the socio-cultural beliefs of
the societies that created them, in particular, in relation to mass produced objects
embodying meanings related to gender and sexuality (Forty, 1986; Lupton, 1993;
Spark, 1995; Sudjic, 2008). I have used Spark (1995) because she specifically writes
about Victorian women and mass production, however the other authors cited below
establish justification for the above argument and demonstrate the progression and
place of elements of cultural studies or sociology influencing design history and
critical theory (Attfield & Kirkham, 1989; Buckley, 1989; Dilnot, 1989; Forty, 1986;
Julier, 2008; Lupton, 1993; Margolin, 1989; Spark, 1995; Walker, 1989; Whitehouse,
2009). My review of this literature shows that, apart from a brief period in the 1990s
there is a lack within design history or theory a larger body of work addressing
women and design that goes beyond women as consumers. This is particularly
evident in Buckley’s (1996) essay, Made in Patriarchy and the range of essays
assembled for Attfield & Kirkham’s (1996) text A View from the Interior, Feminism
Women and Design. However, in the two decades since then, design discussions
around issues of women and design remain few and far between (Buckley, 2009;
Clark, 2009).

My arguments rest upon a number of scholarly arguments that are highly developed
in other fields. In Sociology, there is a body of work that discusses how gender and
sexuality is constructed by a socialization process since birth (Giddens, 1989; Evans & King, 2006; Knuttila, 1996; Newman, 2008; Parker, Mars, Ransome & Stanworth, 2003; Plante, 2006, Robertson, 1987; Slattery, 2003). These authors describe how we are the products of the societies we have been born into and our behavior is dictated by a range of beliefs, folkways, norms and mores. That these beliefs are transferred to us through the social institutions we all interact with—the family, education, the law, politics and in particular media institutions (Giddens, 1989; Evans & King, 2006; Knuttila, 1996; Newman, 2008; Parker, Mars, Ransome & Stanworth, 2003; Plante, 2006, Robertson, 1987; Slattery, 2003). These authors also discuss the idea that these non-tangible beliefs are embedded in the products of material culture. These ideas are also the foundation of design history texts (Attfield & Kirkham, 1989; Buckley, 1989; Dilnot, 1989; Forty, 1986; Julier, 2008; Lupton, 1993; Margolin, 1989; Spark, 1995; Walker, 1989) that specifically discuss mass produced objects within the context of the socio-cultural beliefs of the societies that created them. These concepts are also being established and developed within the frameworks and knowledge bases of design research (Diaz-Kommonen, 2002; Kuutti, 2009; Poggenpohl, 2009). In Poggenpohl (2009) the author quotes Design Research pioneer Klaus Krippendorf discussing the concept of meaning as central to industrial design and an axiomatic principal ‘…that humans act not on the physical qualities of things but on what they mean to them’ (2009, p. 15). Poggenpohl (2009), Kuutti (2009) and Diaz-Kommonen (2002) all discuss the socio-cultural meaning of designed artifacts and the ability and responsibility of designers to embed meaning within the products and collaborative product systems they create.

Using these two main assumptions—the construction of gender through a socialization process since birth endorsed and affected by institutions, language, objects and environments; and the ability for mass produced objects to reflect these socio-cultural meanings that designers then use in developing artifacts—my research has focused on three main periods—the Victorian period (late 19th century to early
20th century), the late 20th century and the early 21st century. I have focused on these periods for specific reasons. My focus on the Victorian era is used to discuss the attitudes to female sexuality of the era (Maines, 1999; Sparks, 1995; Summers, 2001) that created the precursors to the modern vibrator—the medical vibrator to treat female patients of hysteria (Maines, 1999), the beginnings of the modern mass market pornography, and the resulting obscenity laws that developed out of moral panics around pornography and new printing and communication technologies at the time (Comella, 2008b; Dines, 1998; Hunt, 1993; Kipnis, 1996; Klein, 2006; Jensen & Dines, 1998; McClintock, 1992; McIntosh, 1992; McKee et al., 2008; Nathan, 2007; Nead, 1992; Rubin, 1984; Segal, 1992a; Sigel, 2007; Schlosser, 2003; Vance, 1984; Williams, 1989; Williams, 2004a).

My thesis then compares this period with the late 20th century using the emergence of the modern adult industry sex toy as a central focus. It looks at the changes in attitudes to female sexuality across the 20th century (D’Emillio, 1983; Goren, 2003; McLaren, 1999; Snitow, Stansell, & Thompson, 1983), yet shows the symbols and conventions of the modern adult industry remain closely aligned to Victorian sexual values and pornography (Dines, 1998; Hunt, 1993; Klein, 2006; Jensen & Dines, 1998; McClintock, 1992; McIntosh, 1992; Nathan, 2007; Nead, 1992; Rubin, 1984; Segal, 1992a; Sigel, 2007; Schlosser, 2003; Williams, 1989); and shows the modern industry still being affected by Victorian Obscenity Laws resulting in social and commercial marginalisation (Elimelekh, 2006; Klein, 2006; Lindemann, 2006; Rubin, 1984; Schlosser, 2003).

This is part of an analysis of the adult industry product in Chapters 3 and 4 which I argue the adult industry has not caught up with the changes in attitudes and practices around female sexuality that occurred across the 20th century (D’Emillio, 1983; Goren, 2003; McLaren, 1999; Snitow, Stansell, & Thompson, 1983. Figure 1.3 is a visual comparison of these three eras and succinctly demonstrates without text some
obvious differences between the products of each era. I outline that the products of the Victorian era and late 20th century, while emerging from different manufacturing technologies, have the same underlying socio-cultural constructions of female sexuality embedded in them using the historical works of Maines (1999), Sparks (1995) and Summers (2001).

In comparison, the manufacturing technologies of the late 20th century products of the adult industry and the early 21st century products of the industrial design profession are the same, yet the underlying socio-cultural understandings of female sexuality is different. The changes that the industrial design profession has picked up on, which the adult industry has missed are outlined in Chapter 7. It is significant that this new range of industrial designer producers has moved away from literal interpretations of genitalia for a contemporary female consumer, as outlined in Chapter 6, but this is only one of a number of significant changes to sex toy production being bought about by the application of industrial design process and methods.

In Chapter 7 I then discuss how changes from the 1970s to the beginning of the new millennium in female sexual attitudes advance an argument that contemporary female consumers are an increasingly growing, independent and sophisticated consumer market for sexual commodities (Comella, 2008a; Hewson & Pearce, 2009; Hewson & Pearce, 2011) that is a miss-match with the adult industry product and services outlined in Chapters 3. I show how a new generation of producers in Chapters 5 and 6 has used the practices and methods of industrial design to innovate in a market that was not designing a range of appropriate products for a broad and diverse range of demographics and psychographics of contemporary women that was outlined in the sexual surveys of Chapter 3 (Bergman, 2004); Biotech Week, 2004; Davis, et al, 1996; Durex Global Sex Survey, 2005; Fetto, 2002; Richters, et al, 2003; Rye & Meaney, 2007), and the economic data on female consumer groups in Chapter 7 (Miley & Mack; 2009; Silverstein & Sayre, 2009).
In Chapters 6 and 7, to understand attitudes and behaviours of contemporary female consumers, and why the products of a new generation of industrial design influenced sex toy companies are slowly increasing market share (Hewson & Pearce, 2011), I looked at a range of socio-cultural, technological and economic factors that indicator differences to females lives since the 1970s. While the rise of raunch culture is important in indicating a lessening of public sexual taboos (Bishop, 2007; Harvey & Robinson, 2007; Kinnick, 2007; Levy, 2005; McRobbie, 2008; Machin & Thornborrow, 2003; Rutherford, 2007; Sarracino & Scott, 2008), so are changes to female wealth and education, technological changes such as the internet (Juffer, 1998), the development of Information Communication Technologies (ICT) particularly personal devices, and the influence of brand and design culture within business and society. I use a range of sources from marketing literature on female consumers (Brown & Orsborn, 2006; Cunningham & Roberts, 2007; Economist, 2009; Gobe, 2001; Hansan, 2009; Hewson & Pearce, 2009; Hewson & Pearce, 2011; Mack & Miley, 2009; Moran, 2006; Tracey & Achterhof, 2007; Quinlan, 2003; Richman, 2008; Skoloda, 2009; Stevens, 2008, Whyly, 2009), economic data on female consumers and female wealth (Miley & Mack; 2009; Silverstein & Sayre, 2009), and design and branding literature (Gibney et al, 2000; Gobe, 2001; Kornberger, 2010; Moor, 2007; Valtonen, 2003). I analyse how all these areas intersect to create a different female consumer from the 1970s which the new industrial design sex toy companies outlined in Chapters 5 and 6 are designing for, which the adult industry companies have missed by persisting with traditional symbols and conventions of pornography outlined in Chapters 2, 3 and 4.

In the analysis of the Victorian era in Chapters 2 and 4 I have used a range of historical information around attitudes to female sexuality or gender constructions, or examples of how these are embedded in mass production (Garton, 2004; Laqueur, 1997; Sparks, 1995; Summers, 2001; Weeks, 1981). I have also described how female sexuality is constructed and controlled through both pornography (Comella,
obscenity laws (Elimelekh, 2006; Klein, 2006; Lindemann, 2006; Rubin, 1984; Schlosser, 2003). I have attempted to track the shifts in sexual beliefs and behavior from the Victorian period to the present (D’Emilio, 1983; Goren, 2003; McLaren, 1999; Snitow, Stansell, & Thompson 1983) and match that with changes in sex toy production and commodification. In particular I have used Maines’ (1999) text, *Technology of Orgasm* because it is a relevant example of the socio-cultural beliefs around female sexuality directly influencing the development of a sexual commodity relating to product design. It is one of the few texts that specifically relates to the history of sex toys. Maines (1999, p. 122) states:

> The vibrator and its predecessors, like all technologies, tell us much about the societies that produced and used them. The device remains with us, praised by some and reviled by others, neither good, bad, nor neutral, a controversial focus of debate about female sexuality. Some of this controversy, as we have seen, has very old roots in Western Culture, occupying the space in which sexuality, morality, and medicine interact and serving as an outer line of defense of the androcentric model of orgasmic mutuality in coitus.

Apart from Maines’ (1999) work there are few other texts specifically dealing with sex toy production or consumption. There is Storr’s (2003) sociological study of the Anne Summers party plan business in the United Kingdom, which details and discusses the types of socio-sexual attitudes used in adult industry sex toy consumption in the late 20th century. As discussed above there is also a small number of cultural studies and feminist articles on sex toy consumption from the mid 1990s through to the present (Attwood, 2005; Curtis, 2004; McCaughey & French, 2001; Heinecken, 2007; Smith, 2007).
Another author I have cited extensively is Juffer (1998) and her text on American women and their access to pornography at the end of the 20th century. Juffer is useful to the research questions because she broadens the analysis of women and pornography from a narrow textual analysis of skin flicks and magazines to discussing access, technology, legalities and control of content and distribution. This is particularly relevant as discussed in Chapters 6 and 7, as the changes in sex toy production and retail that move away from the adult industry products and services are influenced, I argue by new communications technology developed in the last decade. I show in Chapter 6 how sex toy production and retail is being decentralised away from traditional adult industry networks through the ability for female entrepreneurs to establish commercial networks using the technology of the internet.

I have not attempted to use any cultural studies, history or sociological theories to create a method for this research because I have not been trained in these fields. I have used texts from all these areas to build an argument but I do not claim to be an expert in any of the theories of any of these areas. Downton (2003) in his text, Design Research specifically discusses the use of information or theories from areas other than design for design research projects. The purpose is ‘to increase knowledge of another field or particular theories within it with the expectation that at least some of the ideas will be able to be appropriated in a way that will be useful to design and designing’ (2003, p. 18). Specifically he says about the practice of using information from other fields (2003, p. 13) that:

Designers who explore the theoretical domains of other disciplines are open to, and frequently receive, criticism of their misunderstandings of an area such as post-structuralist French philosophy. The criticisms may or may not be well placed. If the designer or anyone else purports to be an expert or informed in such an area, then she is fair game. If, however, she is simply reading limited amounts of the material and understanding it an reacting to
it with an end in mind of informing or improving some aspect of her designing, then this seems to me to be a perfectly valid and defensible activity.

As there is a lack of design texts relating to sex toy production I have attempted to build a picture of sex toy production using information from what I could gather from other fields. I have also taken up the argument put by both Downton (2003) and Julier (2007) who point out designing, design research and design culture involve complex socio-cultural, historical, economic and technological interactions that go beyond the simplest understanding of design process as a verb—to design.

Within the design research field I have read a body of work to attempt to understand what design research is, what makes it different from or similar to other forms of doctoral or postdoctoral research and how the practical component fits into traditional research models and methods (Bayazit, 2004; Biggs & Buchler, 2007; Cross, 1999; Downton, 2003; Seago & Dunne, 1999; Emmison & Smith, 2000; Friedman, 2003; Glanville, 1999; Gray & Malins, 2004; Laurel, 2003; Pedgley & Wormald 2007) (Poggenpohl & Sato, 2009; Poggenpohl, 2009; Kuutti, 2009; Diaz-Kommonen, 2002). There are a range of different views on what constitutes design research practice. Design research, as discussed in the review of the above literature, is not is a neat fit into the model of scientific research. There are similarities to the overall process in that a literature review is to be established, an argument constructed, scholarship, rigor and analysis applied to the collected information and the dissemination of this body of knowledge into the greater research community for peer review (Friedman, 2003). In my research the practical component such as the design outcomes could be seen to test the ideas of the argument (Downtown, 2003). However, a practical component of a design thesis will never be exactly repeatable by another designer. If the design component is to test a range of ideas it is not the same as scientific method. The design component of this thesis is a design example, or
exemplar (Downtown, 2003) that demonstrates one solution to a range of inputs. It is not a definitive solution or the only solution.

One important aspect of design research methods that needs to be clarified is the use of a practical design project or process within a research format. This is commonly discussed within design research publications as research through design (Chamberlain, Gardner & Lawton, 2007; Downtown, 2003; Frens, 2007; Martin and Hanington, 2012; Stappers, 2007). That is using the design process to develop new knowledge through the production of artifacts. In this case the literature reviewed supports the design process by providing knowledge and information from which to make rational and informed design decisions (Martin and Hanington, 2012). The designed outcome is the critique and theorising of the literature—the artifacts are the response to the literature. In the case of this thesis the literature reviewed serves two main purposes. One is to provide information about demographics or consumer behaviour to inform design decisions, and the other is to place the project within a historical context to understand long standing socio-sexual beliefs and behaviours. This also ultimately informs design decisions as socio-cultural beliefs greatly influence consumer and industry behaviour (Forty, 1986).

My research can be broken into 2 components—that of the design project—the development and marketing of the Goldfrau brand into the global market place and the supporting written thesis. In Chapters 2, 3 and 4 my research uses secondary sources by sex, technology or design historians with an analysis into the artefacts of adult industry producers gathered from company websites. It categorises the symbols and conventions of the adult industry product with the symbols and conventions of mainstream pornography to demonstrate a decidedly historical male-centricity to a product genre consumed by a majority contemporary female demographic.
The research design solution, example or exemplar, addresses the questions and issues outlined in the Chapters 2, 3 and 4. A design solution, in this case generates new knowledge, not only through the development of new artifacts but the subsequent analysis and interpretation of those artifacts into the contextual and theoretical framework of the whole research. This mixture of secondary and primary research develops a new body of knowledge under Applied Research descriptions. Poggenpohl & Sato (2009, p. 14) state this form of research ‘examines a class of problem or possibility that moves the research into useful, instrumental realms’. My research proposes an example of a design solution as documented in the design outcomes in Chapter 5, that has resulted in a document closely related to a case study of the sex toy industry.

It is both a retrospective and contemporary study and mapping of the development of the modern sex toy industry using a range of historical and contemporary secondary sources to describe the socio-cultural meanings of the product genre as well as the technical and commercial networks that attempt to frame both the micro and macro interactions between consumers and the sex toy industry. It tracks current trends and changing patterns within the industry across more than 100 years to give weight to the concluding argument that the producers of the modern adult industry have not keep pace with changes in attitudes to female sexuality and that they are still creating product based on outdated Victorian sexual values. It proposes that a shift is taking place in a slow and deliberate manner whereby producers and retailers from outside the adult industry are providing products and services more in line with the needs, desires and lifestyles of contemporary female consumers as sexual taboos around the industry fall away. This is in line with Yin’s (2003) description of the use social science case studies in a research framework that enables the tracking of phenomena which results in the changing circumstances of an industry. Yin (2003, p. 2) states:
...the distinctive need for case studies arises out of the desire to understand complex social phenomena. In brief, the case study method allows investigators to retain the holistic and meaningful characteristics of real-life events—such as individual life cycles, organizational and managerial processes, neighborhood change, international relations, and the maturation of industries.

The collection of sources and the analysis of those sources into the subsequent chapters developed were well under way before I found sociological case studies as a potential methods framework. As Poggenpohl & Sato (2009, p. 39) state:

Design research has not established effective ways of using this method. Although case study methods in social science and business provide well-structured guidelines, design research needs to develop its own case study methods tuned for effective investigation of design specific problems.

Because of this, I was wary of using the specific methods of other disciplines when not trained in that discipline or attempting to backfill my research to fit a case study model.

The other body of work which I reviewed was about industrial design practice, process and methods itself (Best, 2010; Bürdek, 2005; DIA Website, 2011; IDSA Website, 2011; Kelly & Littman, 2000; Norman, 1988; Norman, 2004; Poggenpohl, 2009; Rhea, 2003; Ulrich & Eppinger, 2008; Valtonen, 2007). One of my arguments is that the modern sex toy industry fails to meet the standards of commercially acceptable product and industrial design practice, and my research is about ways of applying industrial design process to the development of sex toys that will result in higher quality, non taboo, and user-centric product. I am not using what I would consider to be an innovative or new industrial design process in my design project, and neither are any of the other companies I have documented in Chapter 6 that are
developing similar products. I have used explanations of industrial design practice to give overview of the process (Best, 2010; DIA Website, 2011; IDSA Website, 2011; Kelly & Littman, 2000; Poggenpohl, 2009 Rhea, 2003; Valtonen, 2007; Weiss, 2008).

What I am particularly concerned about investigating is that the role of the industrial designer is to balance the requirements of the technical side of a project such as manufacturing processes and standards, materials, components and technologies, legalities and safety (Bürdek, 2005; DIA Website, 2011; IDSA Website, 2011; Ulrich & Eppinger, 2008) and the user or human side of the project—the potential users emotional, ergonomic and reflective needs (Best, 2010; Bürdek, 2005; DIA Website, 2011; IDSA Website, 2011; Norman, 2004; Valtonen, 2007). I argue this is standard industrial design practice and process that is globally defined in the western world, both in education institutes that teach bachelor and post graduate level industrial design, outlined by leading professional industrial design bodies and followed by industrial design consultancies and major product design companies (Best, 2010; Bürdek, 2005; DIA Website, 2011; IDSA Website, 2011; Kelly & Littman, 2000; Valtonen, 2007). In Chapter 5 I use Valtonen’s (2007) case study on the development of the Finnish industrial design profession post World War II, and in particular the development of companies such as Nokia as an example of the practices and processes of the Industrial Design profession.

When I use the term ‘user-centred’ or refer to putting the user at the centre of design considerations, I am not discussing the new sub-field of industrial design research theory which relates specifically to user-centred or ‘human-centred’ design methods (Cassim, Clarkson, Coleman & Dong, 2007; Krippendorff, 2006; Jordon, 2000). I have not followed a specific method of user-centred design research that is outlined in any of the above texts. I am referring to common industrial design process that puts
the users’ needs on equal footing with the technical considerations of the project that will be explained in greater detail in Chapter 5.

**Structure of Thesis**

In Chapters 2, 3 and 4 of the thesis I use what historical evidence is available to present an argument for changing, evolving, diversifying or differentiating sex toy production from current products produced by the adult industry. Using the analysis of the literature generated over those 3 chapters I argue that sex toy production, even at the end of the 20th century, is affected by longstanding socio-cultural understandings about female sexuality. I discuss how these attitudes to female sexuality are embedded in not only the aesthetic of modern mainstream adult industry products, but the production, distribution and retail network that supports its commodification by its alignment to the greater adult industry.

I identify a broad range of female consumers in a review of sexual surveys in Chapter 3 and argue that a miss-match exists between the historical symbols and conventions of pornography that embed within adult industry aligned products and services, and a contemporary understanding of female sexuality. This sets up the issues and problems that the research design project addresses in Chapter 5. The design solution in Chapter 5 is then put in a broader socio-cultural and commercial context with similar examples outlined in Chapter 6 that have become apparent through the research process. In Chapter 7 I identify the underlying socio-cultural, technological and economic changes which enable the design solutions of Chapters 5 and 6 to develop.

In Chapter 2 I look at the historical placement of the modern sex toy industry within the greater adult industry in the 1970s (Schlosser, 2003). I discuss how the sex toy industry became a sub-industry of the adult industry and this has had a profound affect on the type and quality of product that has been produced (Biesanz, 2007, Elimelekh, 2006; Klein, 2006; Lindemann, 2006; Rubin, 1984; Schlosser, 2003).
use historical information to discuss the links between the adult industry and the beginnings of the modern sex toy industry in the United States (Athens, 2005; Schlosser, 2003; Williams, 1989). This firmly places sex toys within the same socio-cultural perceptions as pornography.

I discuss the socio-cultural attitudes to pornography, including the scope of pornography cultural debates to establish long standing socio-cultural taboos around pornography by reviewing the attitudes and opinions of pro-sex/ anti-censorship authors against anti-pornography authors (Comella, 2008b; Dines, 1998; Hunt, 1993; Kipnis, 1996; Klein, 2006; Jensen & Dines, 1998; McClintock, 1992; McIntosh, 1992; McKee et al., 2008; Nathan 2007; Nead, 1992; Rubin, 1984; Segal, 1992a; Sigel, 2007; Schlosser, 2003; Vance, 1984; Williams, 1989; Williams; 2004a). Lastly I discuss the social and commercial marginalization of the sex toy industry through its association with the adult industry and outline the affects on product standards and access to reliable and honest product information (Biesanz, 2007; Elimelekh, 2006; Klein, 2006; Lindemann, 2006; Rubin, 1984; Schlosser, 2003). This shows that the genre sits outside the social and commercial standards of other product genres and this has the potential to affect consumer health and safety, and encourages a lack of competition and innovation within the industry (Biesanz, 2007; Klein, 2006; Rubin, 1984; Schlosser, 2003).

In Chapter 3 I review the evidence from sexual or health surveys on sex toy consumption or use, to identify that females are the majority of sex toy consumers as a basis for questioning the historical male-centricity of adult industry product (Bergman, 2004; Biotech Week, 2004; Davis, et al, 1996; Durex Global Sex Survey, 2005; Fetto, 2002; Richters, et al, 2003; Rye & Meaney, 2007). These surveys are from a range of sources such as university-based sociological or sexual health surveys to surveys undertaken for commercial entities. I discuss the quality of survey material, the relevance of survey questions and summarises the material into broad
demographic groups to establish that sex toy consumers can be found across a broad range of female demographics summarised in Tables 3.1 to 3.9.

I investigate the symbols and conventions of the sex toy industry through examples of major companies, tradeshows, products and branding material shown in Figures 3.1 to 3.14. I compare the symbols and conventions of adult industry pornography with the symbols and conventions of two of the largest global sex toy producers and Europe’s largest retailer. I show how the symbols and conventions of the adult industry directly translate into sex toy outcomes that display the male-centricity of the adult industry (Jensen & Dines, 1998; McKee et al., 2008). This shows a disparity between contemporary female consumers and the historical symbols and conventions of adult industry producers. I discuss evidence that the adult industry is beginning to accommodate or understand a growing female consumer base (Comella, 2008a), yet show through examples discussed in Figures 3.1 to 3.14 the difficulty of mainstream adult industry companies to accommodate their traditional male consumers and contemporary female consumers under single brands.

In Chapter 4 I compare the products of the adult industry of the late 20th century with the Victorian vibrator industry of the late 19th/early 20th centuries (Maines, 1999). I compare and contrast the medical vibrators of the Victorian period and the recreational sex toy of the adult industry in the later part of the 20th century with the western sexual ethos that developed both industries 100 years apart. As a basis, I use the detailed analysis of the historian Maines (1999) in describing the socio-cultural sexual influences on the creation of a vibrator industry in the mid-to late 19th century, and the widespread use of these products by the medical profession to treat Victorian women for hysteria. While Maines’ (1999) research into the Victorian vibrator industry underpins a discussion of Victorian attitudes to female sexuality a number of other perspectives from historians are included in this discussion (Garton, 2004; Laqueur, 1997; Sparks, 1995; Summers, 2001; Weeks, 1981). This is to develop the

I then trace the Victorian vibrator from medical device to domestic beauty product in the early 20th century to adult industry sex toy in the later 20th century (Athens, 2005; Good Vibrations Website, Antique Vibrator Museum, 2009; Goren, 2003; Maines, 1999). I then discuss the adult industry product in the socio-cultural context of the so-called sexual revolution of the 1960/70s, 2nd wave feminism (Anderson, 2006; Chalker, 2000; Juffer, 1998; Loe, 1999) and the dramatic changes in sexual knowledge and attitude across the 20th century (Chalker, 2000; D’Emillio, 1983; Garton, 2004; Goren, 2003; McLaren, 1999; Snitow, Stansell, & Thompson 1983). I compare and contrast the Victorian and adult industry eras’ product categories in relation to the socio-sexual ethos in which both industries developed. I show that even though the adult industry sex toys seem technically and functionally apart from their Victorian counterpart they are closely aligned through a common thread of longstanding socio-cultural understandings around female sexuality (Garton, 2004; Laqueur, 1997; Maines, 1999; Sparks, 1995; Summers, 2001; Weeks, 1981). The adult industry product of the late 20th century is built on Victorian notions of female sexuality.

The understandings generated in Chapters 2, 3 and 4 are used to position the argument put in the second half of the thesis, which demonstrates how the product genre could move from a taboo socially and commercially marginalized industry to a socially and commercially mainstream industry through a design solution outlined in Chapter 5. This move can be achieved by embedding a different set of values within the product designs, branding and marketing that move away from the historical symbols and conventions of pornography and the adult industry. That is, that these
values revolved around designing and branding products that more broadly represent
the diverse range of contemporary consumers, in particular female consumers, than
current adult industry products currently manage as has been outlined.

In Chapter 5 I argue that the processes and methods of the industrial design
profession are central to the creation and embedding of a new set of values that will
evolve the sex toy genre into mainstream commerce. These different values are not
just a range of aesthetics involving distinctly non-pornographic styling, but include
principles of quality manufacturing and material standards, transparent and detailed
product disclosure, and a design process that puts the target consumer group, whether
female, male or couples, at the centre of the conceptual design process.

This is then demonstrated through the research design project, Goldfrau and shown in
Figures 5.1 to 5.16. I argue that the industrial designer as a professional is trained to
balance the requirements of manufacturing and technology with the emotional,
reflective and physical needs of the target consumer and the profession is central to
developing products with the above qualities (Bürdek, 2005; DIA Website, 2011;
IDSA Website, 2011; Poggenpohl, 2009; Valtonen, 2007). I argue that previous
chapters have shown there is a disparity between contemporary female sex toy
consumers and the male-centricity of traditional adult industry product. I discuss the
range of skills and knowledge industrial design training gives and why these are most
appropriate and central to developing a distinctly different type of sex toy product
that creates a broader range of outcomes and options for female consumers, in
particular focusing on concepts of user-centred design and market innovation (Best,
2010; Bürdek, 2005; DIA Website, 2011; IDSA Website, 2011; Kelly & Littman,
2000; Poggenpohl, 2009 Rhea, 2003; Valtonen, 2007)

In the second half of Chapter 5 I discuss the thesis design project. This project, the
creation of a sex toy brand, Goldfrau, and its marketing in the global sex toy market,
is an example of successful product differentiation to adult industry product by focusing on the application of the above concepts of aesthetics, product and material standards, and the users’ emotional, reflective and physical needs (Norman, 2004). I explain how these values are embedded into the material and aesthetic constructions of not only the product itself but the product and company branding (Best, 2010; Clifton, 2009; De Mozota, 2003, Gobe, 2001; Kornberger, 2010; Neumeier, 2003; Norman, 2004; Weiss, 2008). This project also demonstrates how the product and brand is then able to be exhibited, sold and marketed outside of traditional adult industry networks promoting non-taboo socio-cultural and commercial perceptions as shown in Figures 5.1 to 5.16.

In Chapter 5, where the design project is discussed, I explain how over the progression of the research, the outcome has changed from an historical analysis to understand why and how the adult industry came to dominate sex toy product at the end of the 20th century and the affects on the types of products produced, along with the development of a potential design solution using industrial design process and methods, to a documentation of the real-time unfolding of a dramatic change in sex toy production through the influence of a new group of producers using similar methods to myself. This sets the grounding for Chapters 6 where I document this development and show the Goldfrau brand and design proposition as part of a global trend in sex toy production to different values away from historical adult industry norms.

In Chapter 6 I document a range of new generation production companies and female-centric retailers that have appeared on the global sex toy market from the late 1990s to 2010, that demonstrate a strong trend away from traditional adult industry product to new products and services around capturing a growing female consumer base as shown in Figures 6.1 to 6.14. These companies are also examples of the differentiation away from adult industry symbols and conventions in products and
services. I document that the majority of these new production companies have been established by industrial designers or engineers with product design experience. I review a range of products and companies using the same criteria as set out in the preceding chapter. That is, I discuss these new producers in relation to changes in aesthetics, production standards and materials, branding, product disclosure and the ability for these companies to market into non adult industry networks. I also review and discuss the growth of a female-centric retailer that is distinct from traditional adult industry retailers. I review a range of marketing texts to show why these companies have been successful in developing a female consumer base consumers (Brown & Orsborn, 2006; Cunningham & Roberts, 2007; Economist, 2009; Gobe, 2001; Hanson, 2009; Hewson & Pearce, 2009; Hewson & Pearce, 2011; Kent & Brown, 2006; Mack & Miley, 2009; Moran, 2006; Tracey & Achterhof, 2007; Quinlan, 2003; Richman, 2008; Skoloda, 2009; Stevens, 2008, Whylly, 2009). I argue this is evidence of a major shift in the types of products and services created by companies entering the market from outside the adult industry.

In Chapter 7 I discuss the commercial changes of the last two chapters within a socio-cultural framework. I investigate what changes in attitudes to sexuality have enabled a production and retail differentiation away from the symbols and conventions of the adult industry from the late 1990s to 2010. I investigate what conditions exist in the first decade of the 21st century that is different from the 1970s—the era which the modern adult industry sex toy develops from.

Across this period I investigate the increasing eroticisation of the media in the 1990s and the phenomena of raunch culture and pornification (Bishop, 2007; Harvey & Robinson, 2007; Kinnick, 2007; Levy, 2005; McRobbie, 2008; Machin & Thornborrow, 2003; Rutherford, 2007 Sarracino & Scott, 2008) interacting with changes to women’s economic status (Miley & Mack; 2009; Silverstein & Sayre, 2009), the rise of design and brand culture (Gibney, Luscombe, Rawe & Gribben,
2000; Gobe, 2001; Kornberger, 2010; Moor, 2007; Valtonen, 2003) and the affect of communications technologies on the ability to access sexual commodities (Juffer, 1998). I argue that the combination of new communication technologies and changes in a range of attitudes and behavior concerning female sexuality and gender that have shifted from the 1970s (Juffer, 1998) have been identified by a new generation of sex toy producers and retailers from outside adult industry networks, enabling sex toy production and retail to move from taboo to mainstream.

The use of Juffer (1998) is central to expanding the discussion outward from artifact design alone to the social and commercial networks and systems that products exist within. This is important as, while the thesis design project presents alternative artifacts, these artifacts themselves exist within complex and chaotic social and commercial systems. Cultural change cannot develop from the existence of artifacts alone. How consumers access products and who owns the means of manufacturing and distribution influences cultural production alongside design possibilities.

In Chapter 8 I conclude the thesis by examining whether I have addressed the research questions in each chapter through the design project and accompanying written analysis. I discuss the limitations to this project, where this research adds to new knowledge, why it constitutes innovative research and what future research it might lead to.

In this thesis I have used existing knowledge or generated new knowledge (in the form of design artifacts and an analysis of the secondary sources) in all three areas of consumption, production and designer. I have used historical knowledge from the fields of sexual history, feminism and cultural studies to investigate the taboo nature and position of sex toys within social and commercial perceptions. This knowledge could be grouped under Julier’s (2007) consumption category. I have argued the taboo nature of the industry defines its production structures, and at the same time, I
have used design knowledge and process not only to add to these arguments, but as
central to constructing a process of change. I have shown through the practical
process of a design project an example of how sex toy design can embody a different
set of values from adult industry products. I have argued that the industrial design
process or professional practice of the industrial designer is central to establishing
product differentiation away from adult industry values. I have also shown how these
new artifacts can then influence areas within the production category such as
marketing, distribution and retail and then back into socio-cultural perceptions in the
consumption category. I have also documented a number of other design companies
using industrial design in a similar way as further evidence of the interactions of
design trends and socio-cultural movements. This research is an example of the
interactions between the three areas that Julier (2007) describes that makes it a
distinctly design research project.

The next chapter is the first of 3 chapters that look at the contemporary and historical
relationship between modern sex toy production, the broader adult industry and the
historical symbols and conventions of pornography. These 3 chapters outline the	
taboo nature of sex toy production and the affects on product quality and type through
these relationships. In Chapter 2 I begin by examining how sex toy production
came part of the broader adult industry in the late 20th century and the affects of
that association from longstanding morality debates, obscenity laws and pornography
symbols and conventions. This starts to address the research question of how sex toy
production may move from a socially and commercially taboo activity or perception
by examining the causes, which I will use in the research design project to establish
market and product differentiation. Chapter 2 also addresses the sub-question of the
affects of the taboo status of sex toy production on product quality, availability and
the consumers’ ability to access adequate or realistic product information.
Figure 1.1. Typical example of Adult Industry sex toy, Phallus type
Figure 1.2. Julier’s Domains of design culture diagram

- education/training
- ideological factors
- historical influences
- professional status and organization
- market perception

DESIGNER

PRODUCTION
- materials and technology
- manufacturing systems
- marketing
- advertising
- product positioning
- distribution channels

CONSUMPTION
- demography
- social relations
- taste
- cultural geography
- ethnography
- psychological response

object space image
Figure 1.3. Visual comparison of products—Victorian Vibrator, late 20th century Adult Industry novelty dildo, and early 21st century industrial design influenced vibrator.

LATE 19TH CENTURY (CIRCA 1880'S)

LATE 20TH CENTURY (CIRCA 1990'S)

EARLY 21ST CENTURY (CIRCA 2005)

Chapter 2

The Historic and Current Taboo Nature of the Sex Toy Industry

The research question asks how the sex toy industry may go from a commercially taboo to mainstream activity, and central to this is the need to change historic and current taboo of sex toys. Before I can put forward suggested changes I have to articulate historic and current positions and examine reasons that these products have developed from that position are largely unsuitable for sex toys consumed by contemporary females. To this end, in this chapter, I investigate links between the socio-cultural attitudes to mainstream sex toys and the attitudes and practices of the adult industry. I argue that the existence of these products is inextricably linked to the adult industry of the 1970s. The consequence of this link is manifested in the same commercial and social marginalisation of sex toys, that the adult industry experiences, which has had a negative affect on the quality of product. At the same time this has led to a male-centric bias in sex toy production that draws almost exclusively on the symbols and conventions prevalent within adult industry (which is detailed further in Chapter 3). I also argue that the social marginalisation of the adult industry has allowed for an unregulated product genre to exist in a vacuum of standards, competition and innovation.

By identifying why sex toys are historically taboo objects through the associations with pornography and the symbols and conventions of the adult industry I am in a position to answer the main research question of how the sex toy industry can go from a public perception of taboo to mainstream commercial acceptance. The identification of how and why sex toys are historically taboo allows me to address the reasons and attempt to change that public perception in the design of a different sex toy brand (which is outlined in Chapter 5). This chapter also addresses the evidence of a lack of product safety and quality within adult industry product, which is again central to the research sub-question of why industrial design as both a process and
profession, is central to bringing the product genre mainstream commercial acceptance. This is answered in Chapter 5 and 6 as I explain how the processes and methods of industrial design led to safer, higher quality product outcomes that is shown in the research design project (in Chapter 5) and other new sex toy producers (in Chapter 6).

**Historical Background: Sex Toys and the Adult Industry**

This section outlines the historical background between the sex toy industry and the modern adult industry in the later half of the 20th century. It shows an intimate relationship between both where sex toys are retailed and distributed through adult industry networks (also discussed in further detail in Chapter 3). The situating of sex toy production, distribution and retail within adult industry networks explains why sex toys produced in the late 20th century through the adult industry remain taboo. That is the products (as will be outlined in more detail in Chapter 3) take on the symbols and conventions of other adult industry products and services, displaying particular pornographic aesthetics and functions relating to the adult industry. Access to the products is also through adult industry retail networks, which has catered traditionally to the male consumer (Hewson & Pearce, 2009; Kent & Brown, 2006). This situating of sex toy production and consumption within the adult industry explains the taboo perception of the products and allows for brand differentiation through alternatives as outlined in Chapter 5’s design solution.

The sex toy industry came to be associated more intimately with the greater adult industry from the 1970s onwards (Schlosser, 2003). Athens (2005) states that the selling of sex toys from adult bookstores started in the 1960s. At the same time, two new companies formed in the United States in the mid-70s, Doc Johnson and Topco, growing to be two of the biggest sex toy manufacturers globally (Topco Corporate Website, 2011, Doc Johnson Corporate Website, 2011; Schlosser, 2003). Both of these companies are privately owned so it is not possible to get publicly released
financial figures. Topco’s website states the company was launched in 1973 and has
grown to be one of the biggest sex toy manufacturers in the world (Topco Corporate
Website, 2011). The Doc Johnson website states in the history of the company that it
started in 1976 and they now claim to be the biggest sex toy manufacturer globally
(Doc Johnson Corporate Website, 2011). Chapter 3 will outline that sex toy
manufacturers use the same retail and distribution networks as the greater adult
industry in a further analysis of the links between them. However, this section is
intended to give some historical background to the current situation and show a close
relationship from the 1960s and 70s onwards.

Schlosser (2003) argues that Doc Johnson had a direct relationship to the
development of the adult industry in the 1970s. Doc Johnson was created and owned
by one of the most influential businessmen and entrepreneurs of the developing adult
industry in the United States in the latter half of the 20th century. This entrepreneur
was Reuben Sturman.

Schlosser (2003) tells us that Sturman, virtually unknown by the general public,
created a pornography business empire that far exceeded the better known porn
businessmen of the era like Hugh Heffner (Playboy) and Larry Flint (Hustler).
Sturman started out distributing comic books in the early 60s but found he could
make money distributing the early versions of Playboy magazine and the sex-pulp
novel. Over the 30 or more years in which his business empire grew, Schlosser
(2003) estimates Sturman was worth hundreds of millions of dollars. Sturman
distributed magazines, film, video, and sex toys: he owned a chain of his own retail
outlets and in 1976 he set up Doc Johnson, now one of the world’s largest sex toy
manufacturers (Schlosser, 2003).

According to Schlosser (2003) that Doc Johnson was established by Sturman in 1976.
Doc Johnson publicly promotes that the company was and continues to be managed
by Ron Braverman since the 1970s (see Edenfantasy, Interviews, 2009). In this interview with Edenfantasy, Braverman talks about his 30 years as CEO of Doc Johnson and he makes no reference to Sturman’s involvement in setting up Doc Johnson. It is understandable that Braverman would ignore Sturman’s involvement since Sturman was hounded by the United States government for decades, eventually dying in prison in the 1997 on a tax evasion charge. Schlosser (2003) says Doc Johnson was still controlled by Sturman in 1991 and makes no inference that the company, even if started by Sturman, has ever been involved in illegal activities. My use of Schlosser (2003) describing Sturman’s creation of Doc Johnson is to illustrate that sex toy production and retail has been entwined with the development and growth of the greater adult industry since the 1970s.

According to Schlosser (2003) Sturman not only used his growing profits to expand his businesses across the United States, but also entered international markets. Schlosser (2003, p. 130) states:

> In the Netherlands Sturman opened adult bookshops with Charlie Geerts, who became that nation’s leading sex merchant. In Great Britain, Sturman formed a joint venture with the Holloway family—Mary, Ben their daughter, and five sons—who soon dominated the porn business of London. Sturman provided his foreign partners with capital and expertise, while they ran the companies and faced most of the legal risks. He backed partners in France, Germany, and Switzerland.

Charlie Geerts and his business partner Gerard Cok established distribution and mail-order companies Pabo and Scala that had very close links with one of Europe’s largest retailers Beate Uhse. Eventually Pabo and Scala were bought by Beate Uhse, and Gerard Cok became CEO of Beate Uhse. Beate Uhse Corporation, situation in
Germany, claims to be not only the biggest distributor of erotic material in Europe but globally as well (Beate Uhse Corporate Website, Wholesale, 2009).

I argue that sex shop product and retail between the 1970s to the new millennium looked similar the world over because it was dominated by the products and business model of one entrepreneur—Sturman—and copied and expanded upon by other entrepreneurs. However, the relationship between the retail environment of the adult industry and the products of sex toy industry is still tight. It has enabled a small number of companies such as Doc Johnson and its equally large rival Topco to build large brands suiting the aesthetic of the adult industry—an industry whose majority consumers are traditionally males as will be detailed further in Chapter 3.

This documentation of pornography entrepreneur Sturman is to illustrate the close business links between sex toy manufacturers and the greater adult industry. The next section discusses the impacts of that close relationship on the perception of sex toys as taboo. This helps to answer the sub-research question of why sex toys are publically perceived as taboo.

**Pornography Debates and Morality Wars**

I argue that the embedding of the sex toy industry within the adult industry has created not only a state of taboo around sex toys as products but has also affected the type and quality of products produced. They have taken on the pornography aesthetic and certain conventions of the adult industry, which will be discussed in greater detail in Chapter 3. In this section I discuss the social marginalisation of the adult industry, and by association, the sex toy industry and discuss the affect of censorship, illegality and morality issues on the development of the adult industry, and by association the sex toy industry. This relates to the research question as I further explain the social marginalisation of sex toy production through the social marginalisation of the adult industry itself, as I argued above, the two are intimately linked. I also explain and
detail further in the chapter how this marginalisation has affected the quality of the products and why this matters.

I argue that due to the entwined commercial relationship between the sex toy industry and the greater adult industry; the social and legal status of sex toys has taken on the social and legal status of pornography due to the current and historical associations with each other. The effect is a continuation of the historical taboos and in some cases illegality of either the sale or use of product.

While it is outside the scope of this research to discuss at length the morality battles between social conservatives and pornography producers, pro-sex or anti-censorship groups across the last 150 years, some discussion will help frame the depth of social taboo felt against pornography and, by association, sex toys. For this, I document some historical background and then some specific examples of the legal problems distributors and retailers have faced and still face, particularly in certain jurisdictions of the United States.

Historically, laws and moral panics around pornography came to prominence in England and the United States in the mid to late 19th century as discussed by McIntosh, (1992), Sigel (2007) and Rubin (1984). Rubin (1984) states there are historical times that ‘sexuality is more sharply contested and more overtly politicized’ (p.267) and the end of the 19th century in England and United States was one such period. She states during that time there were a number of social movements focused on various different vices. The ‘sex wars’ (Rubin, 1984, p. 268) of the late 19th century in England and the US were fought over issues such as chastity, prostitution, masturbation, homosexuality and sodomy, visual pornography or obscene literature, dance halls, abortion or birth control information.

Advancing print technologies allowed pornographic texts and images to be circulated cheaper and more widely (Nathan 2007; Sigel 2007). McIntosh (1992) documents, in
the 18\textsuperscript{th} and 19\textsuperscript{th} centuries, pornography was acceptable if kept by upper class gentlemen, who supposedly had the education and class to appreciate it on literary, artistic or political grounds. However, new technologies such as photography and advances in printing in the mid to late 19\textsuperscript{th} century created moral panics in the ruling classes around the availability and mental suitability of women, children and the working classes having access to pornography. Sigel (2007) states that as pornography moved from being tied to political or revolutionary ideals and became more of a consumer product, the governments across Europe (2007, p. 12),

...including England, France and Germany, began national campaigns to control their populations through the censorship of sexual ideas. The state intervened with the justification that it needed to help the weak—particularly the young, poor and female—who remained susceptible to immorality.

Furthermore, new print technologies making sexual material a more highly available commodity clashed with the ideologies of the Victorian bourgeois. McIntosh (1992) states pornography came to represent anything outside the constructed moral boundaries of the middle and upper class. She states (1992, pp. 163-164):

It would not be a great over-simplification to say that it developed along with middle-class morality in the nineteenth century. As this morality of prudery and sexual restraint displaced both aristocratic licentiousness and the rules of thumb of earlier Christian teaching and rural custom, so a separate space, outside the pale of the new respectability, was created for everything that prudery condemned.

Victorian era governments, particularly in England and the United States, developed legislation to define and restrict obscenity. Pornography came into existence as a term to label what was defined as obscene under the law, such as the 1857 \textit{Obscene Publications Act} in England and the \textit{Comstock Law} of 1873 in the United States as
documented by Hunt (1993), Sigel (2007) and Rubin (1984). Both these laws and various others are still in force today as documented by Klein (2006) and Rubin (1984). The pornography laws that were enacted in both the England and the United States in the late 19th century made it ‘a crime to make, sell, mail, or import material which has no other purpose than sexual arousal’ (Rubin, 1984, pp. 268-269). Klein (2006) documents in the United States, there are different laws at a federal, state or local level that cover definitions of what is obscene, what one can post or sell, whether one can buy or sell a product to use on one’s genitals, whether one can visit a strip-club or as a businessperson, where one might be able to conduct one’s business—on the high street or in an industrial area or not at all. Rubin (1984) states much of the sex laws defined over a hundred years ago are still enforceable today and directly date back to the ‘morality crusades of the 19th century’ (1984, p. 268).

Rubin (1984) argues all erotic behaviour is considered bad if it doesn’t reside with well established social boundaries of marriage and hetero-normativity. She argues there is hierarchy of decency within western society with married heterosexual couples at the top. Pornography material and pornography actors reside within the lowest margins of this decency scale. She states, ‘As sexual behaviours or occupations fall lower on the scale, the individuals who practice them are subjected to a presumption of mental illness, disrespectability, criminality, restricted social and physical mobility, loss of institutional support, and economic sanctions’ (1984, p. 279)

Rubin (1984) draws up a model of socially sanctioned good sexual behaviour that places pornography, the use of pornography and sex toys in the abnormal category. She specifically says to be considered by society to have normal sexual behaviour, ‘It should not involve pornography, fetish objects, sex toys of any sort…’ (1984, p. 280-281). In Rubin’s (1984) model of socially sanctioned or rewarded good sexual behaviour pornography is on the outer limits with other taboos such as
homosexuality, transgender, prostitution, group sex, casual sex and fetish behaviour such as sadism and masochism. Rubin (1984) states this model of good or bad sexual behaviour has been built on thousands of years of initially, religious sexual taboos and then within modern medicine and psychiatry further categorised as deviant behaviour.

Nathan (2007) documents the invention of the Gutenberg Press in 1450, as enabling a wider and easier distribution of sexual material that was perceived by the medieval Catholic Church as subverting their control of public sexuality. However, the term, pornography, did not enter the English language until 1842 as the English Tariff Act was amended to prohibit daguerreotypes of a sexual nature (Nathan, 2007). As documented by Hunt (1993), Nathan (2007) and Sigel (2005) various European countries in combination with the Catholic Church had been banning pornographic-type material since not long after the Gutenberg press enabled mass production of sexual images. Hunt (1993) documents that while the first pornographic books revolved around sexual positions and saucy stories, pornography was also used at various times as a political weapon, particularly around the time of the French Revolution as: 1) a subversive act against the dominant legal structure which banned it, 2) a way of mocking religious or political figures by depicting them in various sexual positions and acts.

Segal (1992a), like Rubin (1984), sees pornography developing side by side with the morality debates and moral panics of the Victorian period. Obscenity laws developed out of the sexual discourses of the 18th and 19th centuries around male control of female sexuality. Segal (1992a) says Victorian pornography follows other depictions and social ethos of female gender and sexuality in that (1992a, p. 69),

All scientific and cultural discourses of the last hundred years—from sexology and psychoanalysis to the diverse literary genres available to us...depict a crude, imperious and promiscuous male sexuality
alongside female helplessness, hypersensitivity, empathy and emotionally. It is here, as also in the anxious mirroring of pornography, that we encounter the more basic, more fundamental ‘propaganda’ suggesting the ineluctable selflessness, the inevitable subordination, of woman: woman who can find her salvation only through the servicing of others. It is only in pornography, however, that this servicing is depicted as exclusively sexual...

Segal (1992a) draws upon the work of Victorian sexual historian Steven Marcus and his description of the conventions of Victorian pornography. That is, the main conventions of Victorian pornography, the ever-desiring, ever-ready, sexually insatiable sexual female, the ever-hard, huge, erect male member and two or more men engaged in sex with one woman—symbolising dominance and control—are according to Segal (1992a), still evident and central to the conventions of contemporary pornography. This is important to the understanding of the conventions of the modern sex toy industry (discussed in further detail in Chapter 3) that discuss the symbols and conventions of sex toy packaging and design that still reflect these Victorian conventions and not a realistic understanding of the contemporary female consumer. This understanding of the conventions of modern pornography reflecting Victorian sexual values relates to the research question because, I argue, taking a contemporary 21st century understanding of female sexuality not a Victorian one will create a sex toy brand that is commercially mainstream (that is outlined in Chapter 5). It will reflect the values of the contemporary female consumer, not the historical ideals of Victorian pornography, which continues to be reflected in contemporary adult industry products and services that will be documented and discussed in Chapter 3).

The contemporary debates between pro-pornography and anti-pornography are described as religious conservatives, as documented by Klein (2006) and Rubin (1984) and Williams (2004a), and hardline feminists on one side such as Dines, et al.,

Comella (2008b) summarises a schism that developed in feminist politics in the early 1980s in the United States around pro and anti-pornography issues, ‘…commonly referred to as the feminist sex wars, a set of deeply felt ideological divisions about feminism’s relationship to pornography, power, pleasure, and a range of “deviant” sexual identities and practices’ (2008b, pp. 202-203). Comella (2008b) documents that ‘writers like Andrea Dworkin, Susan Brownmiller, and Gloria Steinem, among others, and groups such as Women Against Violence Against Women (WAVAW), Women Against Violence in Pornography and Media (WAVPM), and Women Against Pornography (WAP)’ (2008b, p. 205) took a hardline approach to what these groups perceived as deviant sexual activity, female involvement in pornography and the notion that pornography represented sexual violence towards all females in general. On the other side of the argument Comella (2008b) states, an opposing group of ‘sex radicals and pro-sex feminists committed to sexual freedom, autonomy, and anti-censorship’ (2008b, p. 205) formed a loose coalition to provide a counter balance in feminist politics throughout the 1980s and 90s to what had previously been a dominantly held position in academia and theory towards a feminist anti-pornography position.

Anti-pornography arguments come from both feminist academics such as Dines, et al. (1998) and those listed above by Comella (2008b); or religious conservatives as documented by Klein (2006) and Rubin (1984) and Williams (2004a). The arguments discussed by these authors are that pornography is addictive, it threatens traditional
family structure (therefore the whole of society), it causes violence and rape against women, that young men who learn sex though watching porn develop unrealistic ideals of sexual practice which can harm later relationships and because of new technology it can now be easily accessed by children. Further to that, anti-pornography feminist arguments add that not only does it reduce women to sexually objectified objects, but it is also another significant area of society in which male violence and domination of females is played out. That pornography is not a signifier of certain types of sexual practice but rather that it represents another form of patriarchal dominance—leading to more violence and disrespect towards women. (Dines, et al., 1998; Nathan, 2007; Russo, 1998)

Pro-pornography arguments revolve around civil liberties issues of an individual’s right to the privacy of their own sexual practice without the interference of church or state (Nathan, 2007). No major sociological or psychological studies around the affects of pornography have found it to be particularly harmful or inciting men to violence towards women (Segal, 1992b). Demark, is used as an example where censorship of pornography was lifted in 1969 and sexual crimes against women went down. Japan is also cited as a case where pornography is widely available in manga-style comics, often depicting violence towards women, yet Japan has a low rate of rape compared with most other countries (Nathan, 2007).

Another pro-pornography/ anti-censorship argument points out that it is extreme to equate all heterosexual sex acts with violence towards women (Nathan, 2007). That anti-pornography feminists are taking the women’s movement back to the notions of men having strong libidos and women having weak or no sexual appetite (McIntosh, 1992), and the sexism displayed in the products of adult industry are no more or less prevalent or extreme than the stereotypes within the mass media depicting women within advertising, television or film (Altman, 2001; Rutherford, 2007).
Yet another argument is that pornography is private fantasy: that is it should never be considered to be understood as reality (Segal, 1992a, Kipnis, 1996). People can engage in all sorts of extreme fantasy thinking, desire and role playing that does not translate into action and behaviour in everyday life. Pornography can also have varied meaning and response for each individual—what may excite someone will repulse another—which suggests that it is problematic to define politics based around pornographic fantasy (Segal, 1992a, Vance, 1984).

One key argument discussed by both sides (Dines, et al., 1998) and (Segal, 1992a) is that the penis is always central to the action in mainstream video pornography to the detriment of female agency. Each side draws the phallus as the symbol which represents male domination and power throughout history, but they interpret that symbolism in different ways. Anti-pornographers (Dines, et al., 1998) argue that the male-centric focus of video pornography represents male power and violence in the world and that pornography reinforces and continues social violence and inequality against women. Conversely, pro-pornographers such as (Segal, 1992a) contend that the conventions of porn—the centrality of the ever-erect penis, the submissive, ever-ready female— is a wishful fantasy on the part of males. It is the opposite of how sexual interactions actually work—men are insecure about sex and the reliability of their penises and often fearful of rejection by women. The phallus is a fantasy—the penis suffers from insecurities, rejection, flaccidness, premature ejaculation and impotence. Segal’s (1992a) position is that pornography actually represents male insecurities writ large rather than male power. It is how some males wish the world to be but it is not.

Others (Altman, 2001; Foucault, 1978; Kipnis, 1992; McIntosh, 1992; Rubin 1984, Segal, 1992a; Vance, 1984) see the regulation of pornography or taboo acts as forms of social control by powerful elite. In particular, regulating and controlling female sexuality is seen in the wider context of controlling women in general. Rubin (1984)
in discussing Foucault’s ideas on sexuality says, ‘Sexuality in Western societies has been structured within a punitive social framework, and has been subjected to very real formal and informal controls.’ (1984, p. 277). Rubin (1984) argues that obscenity laws around pornography and prostitution are an attempt to control the relationship between potential sexual commodities and commercial activity.

Rubin (1984) says concept of obscenity or what might be constituted as obscene is continually being redefined and challenged as the social boundaries of Western society shift in regard to sexuality. In more liberal periods such as the 1960s and 70s laws or definitions loosened around what constituted an obscenity and what was allowed to be commercially available or socially acceptable. In the 1980s and 90s as governments in both the United States and England swung back to social conservatism, backed by religious lobby groups, definitions changed again. A central feature of these arguments has always been, according to Rubin (1984), the obscenity of an image, text or object that has the sole purpose and existence of the sexual arousal of an individual. This is also discussed by Nead (1992) the idea that a piece of literature, an image, a video or an object can be specifically designed and made for the purpose of sexual arousal, is central to pornography’s socially taboo status and illegality. Sex toys themselves as objects of arousal also directly relate to another of Rubin’s (1984) socially condoned sexual acts—masturbation (which will be discussed in greater historical detail in Chapter 4).

This is a direct problem for the manufacturers, distributors and retailers of sex toys, as objects, not just text or image are included in various definitions of pornography/obscenity and sex toys are designed and made for the sole function of sexual arousal and stimulation. This will be further illustrated in the next section by documenting some specific examples of how censorship affects the honest and reliable communication of product quality or functions to the consumer due to the sex toy industry being regulated by obscenity laws. This aids in answering the sub-
research question about the taboo nature of the industry affecting product quality. What is important to note at this point is that this review of the position of pornography within morality debates explains the taboo nature of the sex toy industry with its intimate association to the broader adult industry and the historical baggage that comes with that.

**Examples of Legal Restrictions and Censorship**

In reviewing the literature pertaining to the legality of sex toys, there are only 2 journal papers by Elimelekh (2006) and Lindemann, (2006) that discuss the legal issues pertaining to specific laws around the use and availability of sex toys; that also illustrate examples of the cases that have come before state courts in the United States. Some of the examples I will use from Elimelekh (2006) and Lindemann, (2006) illustrate the restrictions around the sale of sex toy devices and the affect these restrictions have on the consumer being able to access realistic or factual information about the products they wish to consume. The quote below from Lindermann outlines that 14 states in the United States don’t prohibit the personal use of sex toys but prohibit the sale and distribution. This has entrenched the labeling of sex toys as novelty items—that is joke products—that enables retailers to openly sell sex toys as they are labeled as something else. Where it becomes an issue is if a retailer wishes to discuss the functions of a product as a sex toy and give realistic and factual information to a potential consumer—this retailer becomes in breach of the law. Lindemann (2006, p. 330-331) states:

> While at this time no state explicitly prohibits the personal use of vibrators or other sex toys, in the late twentieth and early twenty-first centuries, several states put into effect legislation prohibiting the possession and distribution of these devices. All states currently place at least one prohibition on the sale of vibrators and other sexual gadgets; in some states, individuals must be eighteen before they
can ‘legally go into a sex shop and buy...a vibrator or a sex toy.’ In other states, individuals must be older...vibrators were illegal in two states, Georgia and Texas...As of 1999, ‘at least 14 states around the country have passed laws that prohibit the sale of sexual devices ... Texas law prohibits the possession of any device ‘designed or marketed as useful primarily for the stimulation of human genital organs’ and there are ‘similar laws on the books in Georgia, Louisiana, Mississippi, Kansas, Colorado, and Alabama...

Penalties in Alabama for a first time offence can occur a fine of up to $10,000 and one year’s hard labour in prison; a second offence up to a $50 000 fine; in Georgia a first offence may incur a $10, 000 fine or up to three years in prison or both (Lindemann, 2006, pp. 331-334). In one case explained by Lindemann (2006) that came before the courts in 2002, it was enough for a Texan woman to be arrested after officers found sex toys in her car (2006, p. 336).

Elimelekh (2006) and Lindemann, (2006) both discuss the cases of Joanna Webb and Sherri Williams. Both cases came before the courts as a result of police undercover operations to entrap the sellers of sex toys as promoting obscenity. Webb and Williams problems were both sold their products as sex toys and gave potential consumers realistic and factual information about quality or use.

In 2004 Texan mother Webb, was arrested by two undercover police posing as a couple wishing to buy sex toys. Webb was selling sex toys from the privacy of her own home. In Texan law it is not an offence to buy a sex toy or use a sex toy but ‘it is a crime to promote a device “designed or marketed as useful primarily for the stimulation of human genitals organs”’ (Elimelekh, 2006, p. 261). Adult stores and party plan companies do exist in Texas and do sell sex toys but they circumvent the legislation if they sell the products as novelties and offer no advice to customers on how they should be used. As soon as one starts discussing the possible real uses for a
product one is in breach of Anti-Obscenity laws in Alabama, Georgia, Texas and Mississippi (Elimelekh, 2006). This presents problems for retailers who wish to advise their customers on what the products are designed for, how one might use them, how one might use them safely and what type of quality they maybe.

In 2007, Alabama resident and sex toy retailer, Williams, took a petition to the United States Supreme Court to have the law in Alabama overturned in her home state (Elimelekh, 2006; Kushner, 2006). She, like Webb, had also been in trouble with the law in Alabama at various times for selling sex toys in an open and honest manner. The petition was refused by the court and the law still stands. In a number of cases, Williams included, plaintiffs attempted to sway the court by presenting evidence that the devices were of medical or therapeutic value in treating sexual disorders. This has been successful in a small number of cases as according to Lindemann (2006), including a change to the Kansas law allowing for medical or psychological therapeutic uses. But, as Lindemann (2006) points out, if these devices are only valid for therapeutic purposes then (2006, p. 340),

...a sexually-healthy woman using a vibrator not prescribed by a doctor to relieve sexual tension is, by definition, either engaging in an obscene activity, or is medically or psychologically dysfunctional ... autonomous female sexuality is either criminalized or pathologized.

Lindemann (2006) argues that this leaves female sexuality at the point it was 100 years ago where it was heavily regulated by legal, medical or social structures.

In Schlosser (2003) a further example relates to the use of the Comstock legislation to prohibit the movement of obscene material across United States borders. It involves the attempted prosecution of PHE Inc, the biggest video, condom and sex toy mail order company in the United States. PHE Inc is owned by Philip Harvey, and
produces the Adam & Eve mail order catalogue selling a range of Adam & Eve branded product produced by Topco.

Harvey had no association with the adult industry prior to starting PHE Inc. He came from a university-educated background and was interested in family planning issues, particularly in developing nations and continually devotes time and money to these issues (Economist, 2009). Harvey started PHE Inc in the late 60s selling condoms by mail order across the United States, to fund health projects in developing nations, but it was not until the mid 70s as he diversified the business into more adult products, especially the new technology of the videocassette that his business became a multi-million dollar company.

Harvey thought that mail-order was the most socially responsible way to sell sexually explicit material. A mail-order company had few affects on its community. No customers streamed in and out of its building at odd hours. There was none of the criminal activity that adult book stores often attracted. Customers could obtain what they wanted discreetly. And people who were offended by sexually explicit material were not confronted with public displays of porn or lurid storefront advertising (Schlosser, 2003).

Schlosser (2003) and the Economist (2009) articles detail how Harvey’s business came up against a number of powerful interests and became a victim of a wider campaign against pornography that the religious right and the Republican Party started waging under the conservative presidency of Ronald Reagan. This was part of a much longer and ongoing anti-pornography campaign in the United States that still continues today (Klein, 2006). It includes campaigns by the religious right and political conservatives to influence legislation and funding on issues such as pornography, homosexuality, abortion, censorship of the internet and sex education in schools. The broader issues are of such size and significance that they are commonly
termed the Morality Wars. Anti-censorship campaigner Klein (2006) calls it a War on Sex and the availability and what constitutes pornography figures heavily and consistently.

Schlosser (2003) documents how Reagan’s Justice Department used the *Comstock* law to ban the dissemination of obscene material by mail to entrap pornography producers and distributors as they sold their products across the various state borders. They increased their harassment by hitting companies with multiple law suits from multiple states. The idea was to put those companies out of business as they could not fight multiple legal battles at once. Most companies they targeted went into a plea bargain with their state justice departments, promising to completely drop out of the industry and never return and then charges would be dropped. When Harvey was raided he refused to plea bargain and eventually won his obscenity court case. He then counter sued Reagan’s Justice Department for suppressing his rights through the use of harassment and won again. But the damage had been done to many of his competitors that were put out of business never to return (Schlosser, 2003).

Philips was able to fight the obscenity charges because of his considerable wealth unlike many other smaller sized businesses and competitors who opted out of the industry under plea bargaining. Still, as Schlosser (2003) points out, ongoing harassment of businesses like Philips creates a climate of uncertainty, taboo and anti-competitiveness.

If an industry is considered taboo, it will not attract the best professionals from other industries, such as business, engineering and design or legitimate investment money (Rubin, 1984; Schlosser, 2003). At the other end of supply line, small retailers like Webb and Williams are prevented from giving honest and accurate advice about their product ranges. Companies that wish to dodge the law must pretend sex toys are ‘novelties’— joke products—not serious forms of product design that interact with
sensitive and intimate human cavities (Elimelekh, 2006; Lindemann, 2006). Business people like Phillips, Webb and Williams (among thousands of others) come to be considered criminals by various law enforcement agencies across the United States under various obscenity acts. Individual users become criminals for possessing sex toys (Elimelekh, 2006; Lindemann, 2006). Women in certain states of America are not allowed to openly buy or possess products that may give them sexual stimulation. As Rubin (1984) states, ‘Obscenity laws enforce a powerful taboo against direct representation of erotic activities’ (1984, p. 289).

Klein (2006, pp. 173-174) says of the situation in America:

...despite the size of its audience, adult entertainment patrons are not eager to reveal their interests. We live in such a sex-negative environment that adult customers around the country are shamed and demonized; few Americans are willing to lose their job or marriage simply to keep the local strip club open ....A naïf might imagine that if only the consumers of adult material would reach a critical mass, they would become a political force, but if that were true, it would have happened already. Millions of Americans already go to swing clubs, and tens of millions more patronize strip clubs, massage parlors, adult book stores, nude beaches, home sex toy parties, X-rated DVDs, and other forms of entertainment. But the social sanction against such activities is so strong that almost no-one will stand up and defend what he or she does, much less assert its wholesomeness.

Rubin (1984) states, penalties for sex laws in the United States are out of proportion to the supposed offence in cases other than rape or sexual assault, and the state interferes in individual sexual behaviour through obscenity regulations to a punitive level that would not be tolerated in other areas of private behaviour.
Like Schlosser (2003), Rubin (1984) also argues that obscenity laws prevent the normal entrepreneurship and competition that the capitalist market allows other product and service areas. She states (1984, p. 289):

> The under-lying criminality of sex-orientated businesses keeps it marginal, underdeveloped, and distorted. Sex businesses can only operate in legal loopholes. This tends to keep investment down and to divert commercial activity towards the goal of staying out of jail rather than the delivery of goods and services…Whatever one thinks of the limitations of capitalist commerce, such an extreme exclusion from the market process would hardly be socially acceptable in other areas of activity.

The examples discussed in this section illustrate two things relating to the sub-question of how the taboo nature of the sex toy industry affects the quality of products. Firstly, the association of sex toys with laws for obscenity affects the ability of consumers to be supplied with honest information about those products. Sex toy manufacturers attempt to get around such legal problems by labeling their products as novelties, which I will discuss in the next section has led to industry wide practices of un-safe material use due to a lack of regulation about product safety for the consumer as documented by Biesanz (2007). Secondly, targeting businesses within the adult industry by government agencies destroys competition by effectively closing some businesses down and labels any business that comes under the umbrella of the adult industry as obscene and therefore social marginal.

I argue that industries and product genres innovate through commercial competition—the lack of product innovation within the sex toy industry in the late 20\textsuperscript{th} century (that will be discussed in further in Chapter 3) can be directly related to its social and legal marginalisation. The state of taboo discourages designers, other creatives and entrepreneurs from entering the market and creating products and
business with strong sexual themes and content unless they are comfortable with the conventions of the adult industry and the baggage of legal and social marginalisation that comes with it.

**Common Product Standards and Safety**

Greenpeace (2006) released a study into the common but unregulated use of phthalates, a chemical softener used in penetrative sex toys. The Australian Adult Industry magazine, *Eros*, in bringing this to the attention of its members stated, ‘...the fact remains that official testing of these products is the reason that most of them have disclaimers on their packaging’ in the form of ‘novelty item only’ (Element, 2006, p. 14). This has allowed certain manufacturers to attempt to avoid any responsibility for their products as the products are sold as ‘novelties’ not sex toys.

The Eros Foundation says, ‘To the best of our knowledge there is no official standards for adult sex products in Australia—it is something of a grey area’ (Element, 2006, p. 14). In researching product standards for my own project, I also found a distinct lack of regulation or guidelines. There are no Australian safety standards that relate to sex toy specification, either powered or non-powered (Australian Competition and Consumer Commission Website, 2011).

Greenpeace in the Netherlands has highlighted the lack of regulation of adult toys as part of a general campaign to have the use of phthalates in plastics banned altogether. They pointed out that phthalates chemical DEHP was banned by the EU in children’s toys, but is still widely used to manufacture sex toys (Greenpeace, 2006).

Biesanz (2007) in the legal article, *Dildos, artificial vaginas, and phthalates: how toxic sex toys illustrate a broader problem for consumer protection* outlines the known medical evidence for health causing problems with phthalates in the United States, and the lack of regulation of not only the sex toy industry but industry in
general. Biesanz (2007) reviews sex toy regulation in the United States, and concludes that besides obscenity laws there is no other regulatory framework provided. He notes that even the NAICS (North American Industry Classification System), the scheme designed to track business statistics within the United States does not have a category for sex toys. He quotes the industry as turning over $500 million per year (Biesanz, 2007).

Biesanz (2007) describes phthalates, as a chemical used to soften plastics that is not bonded with other molecules and is able to ‘leach’ from the product and into the human body. He documents that research into phthalates has found they are capable of interfering with the reproductive system and causing abnormalities with male offspring due to exposure in the womb or through breast milk. They are also a potential carcinogen. Furthermore Biesanz (2007) states the EPA in the United States has set that there is no safe level of phthalate DEHP in drinking water supplies. Californian law requires the publication of a list of known toxins, and DEHP is listed as having the characteristics of causing cancer and affecting male development. He adds, of particular concern is the affect on male reproductive capabilities that is passed on from mothers.

Biesanz (2007) cites the 2001 study at the Cologne Eco-environmental Institute into the composition and toxicity of sex toys that was commissioned by Stern magazine and conducted by chemist Hans Ulrich Krieg. He describes Krieg’s findings as showing that the chemical composition of many sex toys is incredibly toxic, more toxic than anything he had seen in more than 10 years of analysing consumer products. The sex toys tested contained 10 or more hazardous chemicals, including ‘extraordinarily high’ amounts of di(2-ethylhexyl) phthalate (DEHP). Professor Hermann Kruse, a toxicologist at the University of Kiel, called that level of toxicity ‘sheer insanity’ (Biesanz, 2007, p. 207).
Biesanz (2007) perceives the problems to be that the materials used in cheap vibrators and dildos that give a soft feel, commonly known as Jelly Plastic contain toxins but remain a cheap material to produce. Profits in the industry on cheaply produced products are built on high mark-ups between manufacturers to distributors to retailers of sometimes 500 per cent. This encourages the production of products with low unit costs. He says that any use of the disclaimer ‘novelty use only’ would be found to have ‘little legal meaning’ (Biesanz, 2007, p. 221). At the same time, Biesanz (2007) adds, the ability for a consumer or a group of consumers to prove health damage from cheap sex toys is virtually impossible to prove under California’s current Toxic Tort Law. While states such as California require products with known carcinogens to be labeled, sex toy producers are clearly flouting this requirement.

Biesanz states that regulating just the sex toy industry alone would be difficult, and any voluntary industry agreements would be open to being ignored for profits. Biesanz (2007) and Greenpeace (2006) both call for a wholesale ban of phthalates within all product categories, as they are found across a broad range of other products from cosmetics to floor coverings.

What Biesanz’s (2007) article highlights is that the sex toy industry is not only highly unregulated for product safety and consumer health but completely ignored as a facet of the economy by economic organisations meant to track material and capital flows. Biesanz states (2007, p. 216):

A major factor that has contributed to the success of the sex toy industry is that it largely operates in the shadows: governments, consumer groups, and the medical field are generally in denial about the very existence of the sex toy industry.

Both the Greenpeace (2006) article and Biesanz (2007) paper illustrate is the social marginalisation of the adult industry as taboo has allowed the sex toy industry to exist
in a vacuum of manufacturing, health and safety standards that get applied to and scrutinised in other product categories. This, I argue, is a direct effect of the social and legal marginalisation that comes with sexual commodities status as pornographic or obscene. The taboo nature of the industry has a direct affect back into production quality and standards.

**Summary**

This chapter explains two important sub-questions of the research. That is, why sex toys are considered taboo products and what is the affect on the quality of the products. I have documented the modern product genre of sex toys as having a closely intertwined relationship with the adult industry, evolving from the adult industry in the 1970s in the United States and has remained associated with pornography both in public perception and legal definition ever since. I have discussed the place of pornography within longstanding morality debates that frame sex toys as taboo and obscene.

The perception of sex toys as pornography or closely aligned with the values or conventions of pornography, undoubtedly reinforced by the continuing association with the adult industry, is also affected by longstanding legal definitions still enforced today that continue to define objects for the sole purpose of arousal as obscene.

In the United States the sex toy industry exists in a paradoxical legal situation where by there is a lack of laws relating to product safety and standards, yet an emphasis on the so called obscenity of those products. One can be arrested for attempting to discuss the functions of a product to a potential consumer, yet as Biesanz (2007) pointed out it is almost impossible for a manufacturer or supplier to be arrested or fined for the selling of products containing potentially cacogenic chemicals or the lack of labeling to protect consumers. Manufacturers have resorted to an industry wide practice of labeling products as novelties, for both the purpose of avoiding
obscenity charges, but also from taking responsibility for the consumer using the product as a functioning sex toy and having intimate physical contact with, in the case of female users, the vagina and any future health consequences.

I have considered that the social and legal marginalisation of the sex toy industry through its intimate association of the adult industry, has created an unregulated industry ignored by government except on definitions of obscenity and that manufacturers of cheaper product are using unsafe materials and flouting laws to protect consumers by failing to label products.

The quality and safety of sex toys, the ability to access honest information about them, the ability to acquire them without interference from the state, and the historical and current public perception of them as pornographic all relate to the research question of how the production and consumption of sex toys can go from a taboo and socially marginalised activity to a mainstream commercial activity. This is central to the research design project as these points get addressed in the design of an alternative sex toy product and brand which has the specific intention of being publically perceived as not pornographic (this is detailed in Chapters 5 and 6). Issues of product quality and the ability for the female consumer to access reliable product information are central to the use in the research design project of an industrial design method.

The next chapter describes and documents in further detail the affect of adult industry symbols and conventions upon the types of sex toy products and marketing produced by adult industry manufacturers and suppliers for contemporary females. I discuss a male-centric bias towards adult industry products and services yet show through a review of sexual health surveys that women across broad demographic categories are the majority of contemporary users.
I question the suitability for an industry with a male-centric bias that is focused on perpetuating Victorian notions of female sexuality to be adequately addressing a contemporary female consumer. This is central to the research question as I will show in Chapter 5 and 6 that industrial design methods put a contemporary understanding of the female consumer at the center of the design process, which I argue leads to a different product outcome to typical adult industry product.
Chapter 3

Symbols and Conventions of Adult Industry Sex Toys

In this chapter I argue for a greater emphasis to be placed on female-centric products than is currently the practice. In making this argument I discuss evidence that has been drawn from sexual or health surveys in regard to sex toy users. This evidence identifies females as the largest consumer group across a variety of demographics. I then contrast this evidence with an analysis of the male-centricity of adult industry sex toys through both the visual language of the products and the industry’s relationship with the broader adult industry. In particular I identify how pornography symbols and conventions translate directly into visual or functional outcomes for sex toys produced by adult industry manufacturers.

In making the argument that the majority of current sex toys are male centric through the relationship with the broader adult industry, I provide a description of the dominant practices of the sex toy industry and its relationship to the adult industry through review of some of the major manufacturers, retailers and trade shows. I also identify the types of products and marketing material that have traditionally formed an industry standard or benchmark in creating a certain type of product in line with the sexual values of the male-centric adult market. I analyse a range of products typical of contemporary mainstream sex toys and their similarities to conventions and symbols of the adult industry. Finally, I identify some emerging trends from outside the adult industry that will contribute to moving sex toys away from being embedded solely in the commercial networks of the adult industry, with the affect that the taboo nature of these products might be reduced or, indeed, removed.

The research question asks how the sex toy industry may go from being a taboo commercial activity to a legitimate mainstream commercial activity. In this chapter I further outline the affects that the relationship between sex toy manufacture and the
adult industry have on both the product outcomes themselves and the public
perception of sex toys as taboo objects. While in the previous chapter I outlined the
position of sex toys in long historical debates about pornography; in this chapter I
discuss how the symbols and conventions of pornography embed in the visual
language of sex toys that I argue entrench pornographic meanings. This both further
answers the sub-questions of why sex toys are taboo and what are the affects on
quality and product outcomes and provides a background to designing an alternative
set of products and brand, with a different set of product values, that is discussed in
Chapter 5 on the research design project. That is, the research design project is an
exemplar of how industrial design process and methods can develop a sex toy that sits
outside the perceptions of the adult industry and addresses the main research question
of how to develop mainstream commercial legitimacy for the sex toy genre.

My research is premised on the notion that currently the sex toy industry is taboo.
The design project is undertaken to show how industrial design methods and
standards can change the cultural connotations and public perception of sex toys
away from being pornographic or taboo by focusing on female user needs rather than
the traditional symbols and conventions of the male-centric adult industry. The title
of the thesis suggests that design solutions can bring the industry from taboo to
mainstream through the creation of a different set of practices and values.

I discuss in this chapter the notion that current adult industry sex toys can be
semantically characterised as symbolic representations of male Western culture
ideals, and the objects themselves can be understood as the embodiment of certain
sexual ideals—that of the adult industry. However, it is also important to discuss the
production, distribution and retail structures that create, move and consume these
products around the globe. In discussing the appropriateness of these sex toys for
female consumers, I also consider the retail and trade environments and their suitably
or appropriateness for access by contemporary female consumers. This again
provides a basis for product and brand differentiation to be developed in the research
design project as an example of creating values aligned with a contemporary female
demographic, that can be retailed outside adult industry networks, thus addressing the
main research question.

In the following section I review the sexual studies literature which reveals a growing
body of evidence that women more than men use sex toys, and that this consumption
by women is increasing with income and education levels. There is also the question
of how many and what types of users are to be considered and more importantly is
the consideration of the percentage of women who use sex toys and in what types of
income brackets or demographics.

**Sexual and Health Survey Evidence**

Fetto (2002) states that the National Sexual Health Institute at the University of
California conducted a comprehensive sexual health survey of various sexual
behaviours within the United States in 1995-96. The survey size was 7,700,
participants aged 18 to 90, and in the 12 months before the survey 78% of
respondents were sexually active with their partners. Part of the survey looked at sex
toy use in the context of partner sex (as opposed to solo-sex: sex with oneself). ‘Of
those, fully 10 percent of sexually active adults use vibrators and/or other sex toys in
partner sex—or 16.3 million adults, if survey findings are projected to the national
population’ (Fetto, 2002). Since the survey does not include use by those who use sex
toys without a partner the true figure of overall sex toy use would most likely be
higher. I have been unable to find the original survey either through a comprehensive
database or Google scholar search, so Fetto’s (2002) summary is the only source of
this information.

The *Durex Global Sex Survey* (2005) gives figures from its respondents of an average
22% across both men and women, with women using more than men at 26%.
Vibrator use was the highest in Taiwan at 47% with the United States and Britain at 43%. Australian respondents were slightly behind at 42%. The Durex website says the 2005 *Durex Global Sex Survey* was the largest of its kind ever undertaken surveying more than 317,000 people from 41 countries.

Rye & Meaney (2007) surveyed a group of students on their sex toy use between 1999 and 2006. The results of that study showed that a third of female respondents had ‘… experience with a “mechanical aid” compared to 8% of men’ (2007, p. 39). The total of students surveyed was 2,405 (1,662 females and 743 males and 93% of the students were under 24 years of age). However, Rye & Meaney (2007) discuss that the survey had limitations as the students were likely to be of a liberal nature and perhaps not a true representation of a sample of the population across various demographics.

The *Sex in America—a definitive survey* (Michael, Gagnon, Laumann & Kolata, 1994), found less than 16% of women aged 18-44 and 17% of women aged 45-59 found vibrator or dildo use appealing or very appealing (1994, p. 146). The question posed was, ‘Do you find dildo/vibrator use appealing as a sexual practice?’ This question is limiting for finding out actual rates of use as asking somebody whether they find something appealing is very different from whether they do it or how regularly. However it shows that at the time—the mid 1990s—a certain percentage of females were not averse to the idea of using a vibrator.

In the same survey the question, ‘Have you bought autoerotic materials in the last 12 months?’, only 2% of men and 2% of women respondents had (Michael, et al, 1994, p. 157). From media reports however, it seems sex toy consumption has been on the rise since 1994 with Good Vibrations of San Francisco reporting a doubling of vibrator sales between the years 1997 and 1999 alone (*Cosmopolitan*, September 1999).
1999) and online retailer drugstore.com saying in *Biotech Week* (2004) that the sale of sex products on their website grows at 34% every year.

A slightly smaller and privately commissioned sex toy survey was conducted in the United States just prior to the NSHS, called *Toys in the Sheets* (Xandria, 1999). It was conducted for the erotic retailer Xandria and compiled and run by the Lawrence Research Group with input from researchers at the University of California who had developed the NSHS 1996 survey that Fetto (2002) discusses. It surveyed 1,000 people, of whom only 25% responded, and the survey group was targeted for those who were already sex toy consumers. The Xandria website says in a summary of the survey, ‘…the *Toys in the Sheets* survey focuses on the subset of Americans who already own at least one sexual enhancement item and investigates who they are, when, where, how, how often and why they use them’ (Xandria, 1999). Access to the original survey through the Xandria Website is no longer available, but Hafferkamp (2000) provides a summary for online sexuality magazine *Libido.com*.

Hafferkamp (2000) summarised the findings from the survey at *Libido.com* as:

…who is the most likely person to use a sex toy? Would you guess a married, monogamous, college-educated, white, Christian, Republican woman in her thirties? That’s the surprising conclusion of a related survey, known as the *Toys in the Sheets* survey of sex toy users. The study noted that this typical woman...has children at home, and a family income greater than $40,000 a year. This most typical sex-toy user owns one or two vibrators and possibly other sex toys, and uses them occasionally in both masturbation and partner lovemaking because she—and her partner—consider them an enjoyable way to add spice and variety to sex.

Around the same time in 1996, the *Journal of Sex Research* published another small survey from the Department of Psychology, Syracuse University, called
Characteristics of vibrator use among women (Davis, et al, 1996). This was, again, a survey based on women who already used vibrators and its intention was to look at various aspects of that use. Of the sample group, it found 63% were heterosexual, 21% bisexual and 13% lesbians. 62% were in a relationship, 31% were not in a sexual relationship and 5% had multiple sexual partners. For those having partner sex, 54% used a vibrator use for stimulation on the clitoris, 24% in the vagina and 3% in the anus. For singles, 79% used a vibrator on the clitoris, 30% in the vagina and 5% in the anus. For couples, 13% of used a dildo either vaginally or anally and for singles this figure was 17%. This survey indicates that vibrator use is not confined to particular sexualities or relationship status. It also indicates varieties of use.

In 2004, the online retailer, drugstore.com, gave an unrestricted grant to the Bergman Centre to conduct a study on the use of sex aids and devices (Biotech Week, 2004). It was a random sample conducted by mail of 2,594 female respondents between the ages of 18 and 60. It found that 20% of women masturbate at least once a week and of those 60% use a sexual device. That is, 12% of women surveyed used a sexual toy once a week. The research also indicated that 44% of all women between the ages of 18–60 had used a sexual device at some point in their lives. Unlike some other studies, it found that sex toy use was more common in women who are in relationships – in 78% of the surveys’ sex toy users were in a relationship. Again, I have not been able to access the original survey and can only cite what was reported in Biotech Week magazine in 2004.

In 2003, the Australian and New Zealand Journal of Public Health published a range of studies into the sexual practices of Australians. One study, Autoerotic, esoteric and other sexual practices engaged in by a representative sample of adults (Richters, et al, 2003), conducted by researchers at the University of New South Wales and La Trobe University in Victoria, asked the question, ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’ Around 20,000 people were sampled, with
slightly over half being men, with a response rate of 73%. This is a large survey with a good response rate from a reputable sexual health research centre, with the findings published in a quality peer reviewed research journal. This survey could reasonably be considered the most contemporary and indicative of sex toy use rates in a Western country. The tables 3.1 to 3.5 display some of the findings from the survey.

Table 3.1. Summarised statistics on sex toy practices from Richters, et al (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—ratio of males to females

<table>
<thead>
<tr>
<th>‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>14.1% of respondents</td>
</tr>
<tr>
<td>Males</td>
<td>11.8% of respondents</td>
</tr>
</tbody>
</table>

Table 3.2. Summarised statistics on sex toy practices from Richters, et al (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by age group

<table>
<thead>
<tr>
<th>‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>14.1% of respondents</td>
</tr>
<tr>
<td>Breakdown by age group</td>
<td></td>
</tr>
<tr>
<td>16-19 years</td>
<td>6%</td>
</tr>
<tr>
<td>Age Group</td>
<td>Percentage</td>
</tr>
<tr>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>20-29 years</td>
<td>15.9%</td>
</tr>
<tr>
<td>30-39 years</td>
<td>18.3%</td>
</tr>
<tr>
<td>40–49 years</td>
<td>15.1%</td>
</tr>
<tr>
<td>50-59 years</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

Table 3.3. Summarised statistics on sex toy practices from Richters, et al (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by education levels

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>14.1%</td>
</tr>
<tr>
<td>Breakdown by education levels</td>
<td></td>
</tr>
<tr>
<td>Less than secondary</td>
<td>12.5%</td>
</tr>
<tr>
<td>Secondary</td>
<td>17.3%</td>
</tr>
<tr>
<td>Post-secondary</td>
<td>13.7%</td>
</tr>
</tbody>
</table>
Table 3.4. Summarised statistics on sex toy practices from Richters, et al (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by occupational classification

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>14.1% of respondents</td>
<td></td>
</tr>
<tr>
<td>Breakdown by occupational classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue collar</td>
<td>13.7%</td>
<td></td>
</tr>
<tr>
<td>White collar</td>
<td>13.6%</td>
<td></td>
</tr>
<tr>
<td>Managerial/ professional</td>
<td>16.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.5. Summarised statistics on sex toy practices from Richters, et al (2003) survey: question ‘In the last 12 months, have you used a sex toy such as a vibrator or dildo?’—breakdown by household income

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>14.1% of respondents</td>
<td></td>
</tr>
<tr>
<td>Breakdown by Household Income (2003)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low &lt;$20,000</td>
<td>11.2%</td>
<td></td>
</tr>
</tbody>
</table>
Middle $20-$52,000  15%

High >$52,000  15.9%

These survey findings show that a higher percentage of the female respondents use sex toys than the male respondents. They also show that rates increase with higher education levels, occupation status and household income. This aspect of the surveys (income and education) was also reflected in the findings from the NSHS survey in 1995-96 as summarised by Fetto (2002). Even though the survey was restricted to couples—only sexual activity in regard to sex toy use, rates increase as household income increases and education level increases. Some of the main findings are shown below. I have included age statistics and marital status and sexual preference to support the argument that sex toy use happens across different demographics.

**Table 3.6. NSHS survey 1995-96 (Fetto, 2002) —breakdown by age group**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–29 year old group</td>
<td>9%</td>
</tr>
<tr>
<td>30-49 year old group</td>
<td>13%</td>
</tr>
<tr>
<td>50-59 year old group</td>
<td>8%</td>
</tr>
<tr>
<td>Over 60s</td>
<td>4%</td>
</tr>
</tbody>
</table>
Table 3.7. NSHS survey 1995-96 (Fetto, 2002)—breakdown by income and educational status

<table>
<thead>
<tr>
<th>Sex toy use and income (1996) or educational status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Couples with combined incomes of over $60,000</td>
<td>13%</td>
</tr>
<tr>
<td>Couples with combined incomes of over $20,000</td>
<td>7%</td>
</tr>
<tr>
<td>College graduates</td>
<td>11%</td>
</tr>
<tr>
<td>High school diplomas</td>
<td>8%</td>
</tr>
</tbody>
</table>

Table 3.8. NSHS survey 1995-96 (Fetto, 2002)—breakdown by marital status or sexual orientation

<table>
<thead>
<tr>
<th>Sex toys use- Marital status or sexual orientation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Married Couples</td>
<td>9%</td>
</tr>
<tr>
<td>Never married couples</td>
<td>10%</td>
</tr>
<tr>
<td>Separated, divorced or widowed</td>
<td>15%</td>
</tr>
<tr>
<td>Gay, lesbian and bisexual</td>
<td>27%</td>
</tr>
</tbody>
</table>

In regard to higher female participation rates, these survey findings are supported by all the other surveys discussed, except for the *Sex in America* survey (Michael, et al,
The 1996 Sex in America survey (Michael, et al, 1994) showed both men and women consume (purchase) autoerotic materials in equal amounts (at 2% each in the last 12 months of the survey), but in 2003, the Australian and New Zealand Journal of Public Health survey (Richters, et al, 2003) reported 14.1% of females used a sex toy in the last 12 months as opposed to 11.8% of male respondents. The Durex Global Sex Survey (2005) reported that women use sex toys more than men, with 24% of women surveyed compared to 21% of men surveyed. The Pursuit of Sexual Pleasure survey (Rye & Meaney, 2007) found 30% of female respondents had used a sex toy compared to 8% of men. Topco one of the biggest United States sex toy manufacturers says on its website 75% of its customers are females (but, there is no clarification as to how they know this). Besides the 1996 Sex in America survey (Michael, et al, 1994), the NSHS survey (Fetto, 2002) which focused only on couple use and the Bergman survey (Biotech Week, 2004) which focused solely on females, the other surveys summarized below show women using sex toys at higher levels than males—between 14.1% to 30% of female respondents.

Table 3.9. Comparison of collected sexual surveys—breakdown by year, male and female demographics

<table>
<thead>
<tr>
<th>Survey</th>
<th>Year</th>
<th>Female %</th>
<th>Male %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex in America survey (Michael, et al, 1994)</td>
<td>1996</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>NSHS As summarised by Fetto (2002)</td>
<td>1995-96</td>
<td>10% of couples surveyed</td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>Year</td>
<td>Percentage Used</td>
<td>Percentage Considered Heterosexual</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>------</td>
<td>-----------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td><em>Bergman Centre survey for Drugstore.com</em></td>
<td>2004</td>
<td>12% of females surveyed used a sex toy once a week</td>
<td></td>
</tr>
<tr>
<td><em>Durex Global Sex Survey</em></td>
<td>2005</td>
<td>24%</td>
<td>21%</td>
</tr>
<tr>
<td><em>Pursuit of Sexual Pleasure-</em> (Rye &amp; Meaney, 2007)</td>
<td>2007</td>
<td>30%</td>
<td>8%</td>
</tr>
</tbody>
</table>

The above surveys show use across a broad range of age groups, sexualities and marital status. The 1995-6 National Sexual Health Institute survey as summarised by Fetto (2002) shows usage across a range of age groups, the lowest being 4% for over 60 and the highest 13% for 30-49-year-olds. That survey recorded a much higher use in gay or bisexual women at 27%. The *Journal of Sex Research* (Davis, et al, 1996) found from their respondents, 63% were heterosexual, 21% Bi-sexual and 13% Lesbians. The Bergman survey (2004) for Drugstore.com found 44% of respondents between the ages of 18–60 had tried a sex toy at some point in their sex lives. The 2003 *Australian and New Zealand Journal of Public Health* survey (Richters, et al, 2003) showed greatest use in females in the decades between 20 and 50 years (between 15–18%) but comparatively significant use under 20 years (6%) and over 50 (8.7%). Of those surveyed, 13.3% considered themselves heterosexual, 45.5%
homosexual and 56.4% bisexual. These surveys showed a wide and varied user group in terms of age and sexuality.

The following section summarises the information from the above sexual surveys and relates the significance back to the research question.

**Summary of Sexual Survey Information**

If the average use for couples ranges from 10% of the United States population 1995-6 National Sexual Health Institute survey (Fetto, 2002) or much higher for single males and females as *Durex Global Sex Survey* (2005) indicates at around 40%—then sex toy use, in particular vibrators are not a fringe recreational or commercial activity. The surveys tend towards recording greater use among women than men, an increase in use comparative to increase in education levels and income, and an increase in total consumption numbers over the last 15 years.

I have argued in the previous chapter, and I will demonstrate further in this chapter that the production of sex toys by adult industry aligned companies produces products and services embedded with the symbols and conventions of the adult industry— an industry with a male-centric history and focus. The above surveys show a majority of female consumers with a broad range of use in age groups, income groups, education levels, sexual orientation groups and marital status, with surveys suggesting higher consumption levels as income and education increases. What this shows is a varied user group, not restricted to a certain type of demographic. Given that the users are so varied, the question arises as to whether adult industry products provide a broad range of product and whether those products are suited to the majority of female consumers. (This will be discussed later in the chapter with an analysis of types of adult industry products that exist and their attributes.)
In relation to the research question, the sexual surveys show a miss-match between the majority of contemporary users and the male-centricity of the symbols and conventions of the adult industry— if the adult industry focuses on its traditional male target market, it is not focusing on understanding and providing for a varied and contemporary female audience. Why industrial design is important to addressing this— is that central to industrial design processes in creating products for any particular target market, is to put the potential users’ needs at the centre of the design process. I would argue, and show in the following sections, that the adult industry aligned sex toy manufacturers have put the traditional male-focused symbols and conventions of pornography before a realistic and contemporary understanding of the female consumers and their sexuality. I argue and will show in Chapters 5 and 6 that using a contemporary understanding of female sexuality as part of the design process will result in outcomes that move the sex toy genre away from existing commercially in the domain of adult industry networks.

The next sections will discuss further the male-centricity of the adult industry, the use of adult industry retail and trade networks by sex toy manufacturers and how the symbols and conventions of pornography become visually and functionally embedded into sex toy outcomes.

**The Adult Industry—is it Male-centric?**

I argue that the adult industry product reflects male-centric sexual needs and desires and are stuck within an industry that recycles its historical symbols and conventions. I am in not against any person consuming safe and reliable products, whatever the symbolism that product may project. What I am concerned with is developing solutions that provide varied or ‘better’ suited products for contemporary female consumers outside of male-centric industries and institutions. As the sex toy industry is currently part of the greater adult industry, I investigate further whether the adult industry and its products revolve around male-centric ideals and later in the chapter
show how these ideals embed in the visual language of sex toys produced by adult industry aligned companies.

Despite the political differences of pro- or anti-pornography authors cited, they all define the majority of product and conventions of the adult industry as being made for a male audience, male target market or being male-centric. Writers such as Kipnis (1992) look at a minority of fetish or sub-culture pornography made for other groups like gays, lesbians or pornography made by women for heterosexual women. There is a growing body of cultural studies writing around subculture or gay porn in anthologies such as *More Dirty Looks* (Church Gibson, 2004) and *Porn Studies* (Williams, 2004b) that discusses pornography that sits outside of the mainstream hetero-normative videos of the European and American industries. Like my arguments about sex toys, both the writings and the products themselves offer an alternative to the current state of mainstream adult industry product. The issues are the same—there is nothing wrong with pornography itself—the act of being aroused by an image, a text or an object—it is the current lack of variety catering to groups other than heterosexual men that is currently both a problem and an opportunity.

McClintock (1992) says it is myth that women do not like pornography or erotic images—but if women do not react to mainstream pornography with the same enthusiasm as men it is because the majority is not made for them or their fantasies. Jensen & Dines (1998) argue the main purpose of mainstream pornography is the arousal and masturbation of men. They state (1998, p. 72):

> We suggest that consumers likely accept the repetitiousness of the genre because the tapes provide them with a kind of sex that men in this culture have been routinely trained to desire. This does not ignore the fact that some women may also find this kind of pornography arousing; it is simply acknowledges that men are the primary consumers.
In her chapter, *Dirty Business*, Dines (1998) describes the beginnings of the modern pornography industry in the United States in print media through the growth of the *skin mag*. She states the modern pornography business took off in the United States in the 1950s with a narrow and specific focus on a male target market. Dines (1998) credits the creation of the modern pornography industry with the publication of *Playboy* magazine in 1953—and its subsequent more hard-core rivals *Penthouse* and *Hustler* in the 1970s. Dines (1998) says the growth of the modern pornography industry developed in the 1950s with release of *Playboy* magazine. Dines (1998) suggests *Playboy* positioned itself as soft-core entertainment and hid behind its editorial of sophisticated articles and advertising, encouraging the myth of the debonair young man of the modern world—the playboy. At its peak Dines (1998) says, in the 1970s, it employed 5,000 staff and turned over sales of $200 million.

Dines (1998) writes it was a magazine of its time—a fantasy relief to its middle class wage slave male audience—trapped by marriage, work and suburbia—imaging the sophisticated life of money, the best products, the latest fashion, cultural knowledge and endless available beautiful girls. It was not a family magazine and was never promoted as a family magazine to its intended audience or advertisers—it was always intended for a male target market. Dines (1998) quotes Hefner in the first edition in 1953 stating: ‘If you are a man between 18 and 80, *Playboy* is meant for you…We want to make it clear from the start, we aren’t a “family magazine”’ (1998, p. 39). Hefner had created the perfect hybrid magazine for men between lifestyle and soft-core sex.

Dines (1998) further documents that for nearly two decades Hefner had no real competition, but in 1969 Robert Guccione released *Penthouse*—a more sexually explicit magazine. By this stage *Playboy* had never even shown pubic hair. However, throughout the 70s both magazines slowly dared each other into more and more explicit material until Hefner pulled back into soft porn and lifestyle to keep its
advertisers and *Penthouse* tended ‘to be more explicit in its focus on women’s genitals, simulated sexual intercourse, sexual violence, and group sex …’ (Dines, 1998, p. 53). However, both magazines were challenged by Larry Flynt’s *Hustler* in 1974, which was much more explicit and hard-core than either.

Dines (1998) argues that where Hefner created the mythical playboy reader, Flynt took ground at the other end of the market creating the mythical, blue-collar, beer-swilling, gun-owning, tradesman or truck driver reader. While each magazine staked out a different market segment, all three magazines were undeniably created for a male audience. All three magazines displayed various degrees of female sexual objectification, female submissiveness, outright sexism and anger towards women in editorials, rape stories and, in the case of the more hard-core *Hustler*, pictorial violence and domination towards women, which became some of the standard conventions for video pornography.

Williams (1989), in *Hardcore*, her cinematic analysis of mainstream pornography films and videos, traces the evolution of the modern video pornography industry in the United States to the symbols and conventions of the earlier stag films. Williams describes these films as shorter in length, often lacking in a clear narrative, and highly misogynist and phallocentric in content. They were designed to be shown at men’s parties or brothels often to encourage males to arousal and therefore in need of the services of a prostitute. Williams (1989) states they also became staple product within early adult book stores that provided peep shows or booths to male customers to masturbate. It is from these practices that modern film and video pornography developed in the 1970s with a strong misogynist and male-centric view of sex.

Modern pornography, initially dominated by print technologies that have now successfully colonised the technologies of film, video and the internet, were created by male businessmen for male customers for the purpose of male arousal and male
masturbation as outlined in the above section. Sexual products for females, such as sex toys, ended up within the porn industry as a niche market created by haphazard circumstance. All products for sexual arousal have been extremely taboo within Western society and the socially marginal porn industry was the only industry willing to provide such a product as discussed and outlined in Chapter 2.

Ranges for females, I argue, were developed by adult industry companies wholly focused on very male-centric sexual values and not the specific and sometimes quite different sexual needs of females. This has affected the type of product produced and the way it has been retailed. This understanding of the historical position of sex toy manufacture within the development of the adult industry during the later of the 20th century further provides an understanding of the taboo perception and place of sex toys. The miss-match between the male-centric values of the adult industry and contemporary female consumers is central to developing an alternative sex toy product and brand that is outlined in Chapter 5.

The Size and Scope of the Sex Toy Industry: Traditional Networks and Future Trends

Statistics on the size of the global sex toy industry are difficult to find and generally embedded within statistical information on the adult industry. The commodities of the pornography industry are generally considered to be lap-top dancing and stripping, peep-shows, magazines, video or DVDs, internet streaming, and sex toys or other novelties (Perdue, 2002). Economic activity is also created by the way those products are made, viewed or distributed. For instance, videos or DVDs require a film or video industry and all the people that work into that. All these products require distribution companies and networks and retail environments. Currently, consumers access film or video products through the internet or cable TV or hire videos or DVDs. Historically, it was peepshows in adult book stores or X-rated cinema, which still
exist but are not as popular as the 60s and 70s (Athens, 2005, Williams, 1989). Other products such as sex toys can be accessed through sex shops, sex supermarkets, mail order or internet order. Sex toy manufacturers and distribution companies also use the international trade shows of the adult industry such as AVN in Las Vegas and Berlin Venus to promote their products and companies as will be discuss further in this section.


Although the revenues of the sex industry are difficult to estimate, Americans now spend as much as $8 billion to $10 billion on ‘adult entertainment’ – on hard-core videos and DVDs, Internet porn, cable and satellite porn, peep shows, phone sex, live sex acts, sexual toys, and sex magazines. That’s an amount roughly the same as Hollywood’s domestic box office receipts, an amount larger than the revenue generated by rock or country and Western recording. Americans now spend more money at strip clubs than Broadway theatres, regional and non-profit theatres, and symphony orchestra performances combined.

In Taylor (2002) the Eros Foundation—Australia’s adult industry lobby group, estimates that 1 million vibrators are sold in Australia every year and the entire adult industry was turning over $1.5 billion annually. The most current estimates from Hewson & Pearce (2011) suggest globally the sex toy market is worth $US 2 billion.

All other legitimate global industries have either international trade bodies, national trade organisations, or are tracked by governments to provide information on
economic significance and flow—which sex toy manufacturing does not have (Biesanz, 2007). From my own experiences I have observed that, even without official tracking or government recognition, the sex toy industry operates in much the same way as other industries. Products are manufactured somewhere, taken up by distributors or middlemen, marked up and moved on to retailers. Producers and retailers meet at international trade shows and trade magazines like AVN act as a de facto business magazine for sex toy producers and retailers. As discussed in the previous chapter and further outlined in this section, the largest companies and trade shows all have significant relationships with the adult industry. Globally, the majority of sex toy commodification occurs within the networks of the adult industry.

The large mainstream American sex toy manufacturers such as Topco and Doc Johnson, I argue, produce a particular type of product that conforms to adult industry conventions that I will document later in this chapter. They are high-volume products, either relying on imitations of body parts or genitalia for styling considerations or the novelty gimmick of a reference to an animal—dolphins and rabbits are popular. From my observations of the Chinese market, Chinese companies supply the market with a lower-quality, cheaper product that imitates and copies the American companies but offers no variation on adult industry symbols and conventions (Economist, April 2005; Economist, December, 2005, Zhejiang Website, 2010).

The largest of the international trade shows available to sex toy producers, in the United States, AVN Las Vegas and in Europe, Berlin Venus, are adult industry events. (AVN Corporate Website, 2010; Berlin Venus Corporate Website, 2010) Sex toy manufacturers line up with DVD makers and porn stars. The majority of retail globally has traditionally been the adult book/video store model now translated onto the internet whose target customer is a male pornography consumer. In Australian the equivalent of AVN Las Vegas and Berlin Venus is Sexpo. It shares the same characteristics regarding the representation of all sectors of the adult industry. Sex toy
manufacturers and distributors will exhibit alongside the likes of porn filmmakers and distributors and the public will line up to meet their favourite porn actresses or web stars (Sexpo Corporate Website, 2010).

On the internet are a number of homemade or independent videos documenting various aspects of activities at events such as Berlin Venus. The images in Figure 3.1 are stills taken from the internet as examples from the videos posted on sites such as YouTube by male attendees. The official Berlin Venus site also provides images of the event. Topless models, actresses licking each other and simulating sex, models penetrating themselves with dildos and displaying their vaginas and anuses for packs of photo journalists, live stripping in front of a large mostly male audience, members of the male public pawing and touching naked and half-naked models, some models grabbing and rubbing the groins of male customers, shoe fetish licking as well as the trade stands promoting video companies, fetish gear and sex toys and other accessories are observable. It has the general atmosphere of a strip club, loud music and many half-naked women. The only naked men are the gay pornography stars while the straight male pornography stars are fully clothed, signing autographs next to their half-naked female co-stars. The crowds are heavily dominated in number by men, while the workers seemed to be heavily dominated by women in various states of undress. It is an environment that is created to appeal to a particular male audience: a male audience comfortable with the products and aesthetics of the adult industry. I would argue that the event would not appeal to a broad range of female consumers as outlined earlier in the chapter in the statistics regarding the varied types of female demographics that use sex toys.

The US AVN shows, by way of comparison, take on an air of modesty by limiting nudity and touching; one can still line up to meet ones favourite pornography actresses. It is worth noting here that the AVN show is trying to understand the female consumer and has run trade seminars such as What Women Want (Comella, 2008a).
Comella’s article indicates that they have understood that the female consumer is the biggest growth segment for the adult industry and suggests that traditional businesses are changing their branding, packaging and products slowly to be more suited to a range of female consumers. This is necessary to compete with a range of next-generation companies, employing higher design and product standards and values, and creating higher-quality or niche driven benchmarks, shaving off market share. This will be discussed in greater detail in Chapters 5 and 6, but suffice to say here that, to compete in a market moving towards greater recognition of the female customer, traditional adult industry retailers have attempted to rebrand their identities as more female-friendly environments and companies. The result is a hybrid of both the traditional male-centric values of the adult industry and a veneer of female-friendliness (see discussion and examples below).

Beate Uhse, Europe’s biggest retailer and distributor of adult product undertook a brand makeover in 2002. The brand is a household name across Europe. The business was started by Beate Uhse just after World War II, making it one of the oldest contemporary retailers of sex products. The Beate Uhse corporate website details the history of the company from a primitive mail order catalogue in 1948 to one of the world’s largest distributors and retailers of erotic material. By 2001 the company had expanded to over 200 stores across Europe and was turning over in excess of €200 million per annum (BBC, 2001). On its own website it says its brand value is worth $59 billion and it is one of Germany’s top 50 most valuable brands. Its website says of its product range;

The range encompasses approximately 20,000 products, and covers the entire spectrum: the latest videos and DVDs, sexy lingerie collections, current magazines and books, classic sex aids and contraceptives, and naturally the well-loved sex-toy collection, which is represented with nearly 7,000 different models (Beate Uhse, Corporate Group, 2009).
The web branding of Beate Uhse in Figure 3.2 and 3.3 (top left), is typical of the confused state of branding traditional adult industry business now find themselves in as they try to accommodate a growing female market. The images in Figure 3.2 is taken from the Beate Uhse corporate website and the image in 3.3 (top left) is taken from the Beate Uhse on-line store in 2008. Beate Uhse heavily promotes itself as a female-friendly or couple-friendly company, yet the screen shot for Figure 3.3 attempts to sell cum-shot videos to males alongside lingerie for women. The corporate website contains images of naked or near naked females, and objectified female body parts alongside business information about investment, company history or stock market reports as shown in Figure 3.2.

Traditional retailers are offering more products, such as lingerie, aimed at women, and dividing their product categories into male and female sections, yet their websites continue to be dominated by the typical male-orientated product and visuals. Depictions of women on these sites are in various states of undress or sexual submission. Pornography stars advertising DVD movies showing themselves as being cum-on alongside models selling product aimed at women, like lingerie. Figures 3.3 and 3.4 show adult industry web providers attempting to target a female market group yet unable to separate out traditional sources of pornography from pages selling sex toys to females. In those Figures (Figures 3.3 and 3.4.) I have circled in red where companies are promoting traditional pornography alongside sex toys for female consumers.

A search through the range of online shops available selling sex toys is illuminating here. Type ‘sex toys’ into Google and over 32 million hits will be available to search. Peruse the first few pages and one will find online stores have grouped into a number of categories and target markets. Those distinctly ‘old school’ adult industry businesses that have hardly changed at all for the female customer; those that service gay or fetish markets; those that are distinctly female orientated and specifically
catering for females; and those that are now hybrids like Beate Uhse and Adult Shop.com—overlay a veneer of female-centric marketing in the attempt to be for both men and women, or couples.

The qualities that I will define and discuss in Chapter 6 on retailers moving to female-centric brands and services have a depth of information, interaction and community that defines them as separate from traditional adult industry retailers, not just a non-pornographic aesthetic. Traditional hybrid retailers are still struggling with the concept of eliminating pornographic styling from their brands in order to compete with a new generation of female-centric retailers, let alone understanding the types of information and services female consumers are getting from these other companies.

The traditional male-orientated or hybrid male/female stores are the majority of the market. Figures 3.3 and 3.4 show a range of online shop branding reflecting the image of any females depicted as slut/naughty/vixen/ pornography star, even within stores attempting to be more female-friendly. Adult shop.com (3.3 top right) displays similar conventions as Beate Uhse (Figure 3.3 top left). Female product is promoted directly next to hard-core DVDs. These hybrid sites that want to promote a certain female-friendliness will use conventions such as the colours purple or pink. Lingerie may be offered and product ranges may be divided between male and female products. However, in stark contrast, any depictions of females on the sites follow the adult industry conventions of female as pornography star or directly sell and show female-friendly product such as lingerie right next to traditional DVD covers showing anuses, cum shots and gang bangs. I would argue that traditional retailers are having difficulty reconciling their traditional market of male consumers and male-centric products and services with the growth in the female consumer market—hence the confused hybrid messages. They are still presenting to women the model of female as pornography star/ slut.
A final view of both the Beate Uhse sites and the Adultshop.com sites in early 2011, over the 1 to 2 years since images for Figures 3.3 and 3.4 were retrieved showed that while the Beate Uhse corporate website branding remain exactly the same, the shop branding had changed dramatically. The Beate Uhse on-line store had become a lifestyle brand selling everything from fashion and electronics to women. No traditional pornography DVDs were able to be obtained and the category of sex toys sat among a range of other product categories that had no traditional associations with sex. The range of sex toys available had not changed dramatically, much of it still adult industry product with its particular type of aesthetic, discussed later in the chapter.

Beate Uhse as a corporation still owns a number of traditional Adult Industry chains across Europe, such as Christian le Duc and Adam & Eve, so the overall type of corporate branding as shown in Figure 3.2 is reflective of the broader organisation still being involved with the adult industry. The Beate Uhse on-line shop and bricks-n-mortar stores seem to have ditched the hybrid model for a stronger emphasis on contemporary female target groups. Beate Uhse Corporation has split their brands into male and female target audiences instead of continuing the hybrid model of trying to accommodate both markets. However the Beate Uhse Corporate branding displaying sexually objectified female figures has not changed. Adultshop.com, despite a significant exercise in branding to the female consumer in the early 2000s, remains using the exact same template for internet shopping as shown in Figure 3.3 (top right) of the hybrid model.

This section gave examples of use of broader adult industry trade networks by sex toy manufacturers that place these companies within trade environments that reflect the symbols and conventions of a male-centric pornography industry. In these symbols women are sexually objectified into narrow types as pornography star, slut or vixen. These symbols are further reflected in corporate or web site branding where
companies attempt to sell sex toy products to female consumers. In relation to the research questions, this widespread use of traditional male-centric pornography symbols to market products, I argue, reinforces the taboo perception of the sex toy industry by its affiliation with the broader adult industry. I will document in the next section how the symbols and conventions of pornography affect the function and visual language of sex toys also through this affiliation. There is also I argue a mismatch between the male-centric values of the adult industry and the broad and varied female sex toy market—this becomes central to developing and a product and brand alternative that is outlined in the design research project in Chapter 5.

**Symbols and Conventions of Pornography: as Evidenced in Adult Industry Sex Toys**

In Chapter 2 I outlined the socio-cultural status of sex toys that has resulted from its relationship with the adult industry. In this section I look specifically at those practices or conventions of the adult industry that translate into physical sex toy product. This is important to discuss because the appearance or functionality of these products point towards a male-centric bias or an aesthetic of pornography that reinforces the genre’s taboo social status.

I compare the conventions of mass-marketed pornography as outlined by Jensen & Dines (1998) and McKee et al. (2008) with a visual survey of sex toy products. It must be noted that while Dines and Jensen write from an anti-pornography perspective, the conventions discussed reflect the conclusions of a range of authors from pro-censorship or anti-pornography positions. The descriptions given by Jensen & Dines were consistent with the analysis in other readings on the conventions of mainstream adult industry video pornography such as McKee et al. (2008) and Williams (1989). Some differences that were brought up were around minorities of sub-culture pornography, such as the gay communities, fetish communities or females
making pornography for females (Kipnis, 1999; Nathan, 2007). These were producers making pornography for a non-white male heterosexual audience. Readings around the video production industries outside of the US, involving countries such as Brazil and Hungary, discussed different body aesthetics and sometimes adopted different filmmaking or plot conventions (Nathan, 2007; Sigel, 2005) from the dominant North American standards which the list below exemplifies.

What Jensen & Dines (1998) surveyed and discussed is mainstream pornography that is made for a white male Anglo audience. They have not surveyed a range of pornography for niche, fetish or sub-culture markets as they argue the majority of pornography produced in the United States and Europe revolves around these mainstream conventions—these are the standard conventions of the market according to these authors.

Jensen & Dines (1998) in their survey *The Content of Mass-Marketed Pornography* described the common conventions and symbols of mainstream pornography by surveying a range of videos and adult novels. These can be summarized as:

- Sex is divorced from intimacy or loving affection—very little if no foreplay (p. 72).
- Women are constantly available for sex, and sexually insatiable (p. 72).
- Women are constantly orgasmic and vocal—men are emotionless and show little reaction even as the character that is always having pleasure bestowed upon them – and males are the only ones that evidently orgasm (p. 77).
- The focus is predominantly on the female body, an abstraction of female body parts, particularly orifices (for video) with breasts more for soft-core magazines—the sexual objectification of female body (p. 73).
• Sex is male-centric—revolves around the penis and male pleasure—men exhibit agency—action, control, domination—women submission, always pleasure at male action (p. 73). Men are always in control—women always become submissive: ‘Sex in these videos was male-centred. Sex was marked by the rise and fall of the penis, beginning with the need to fuck, evidenced by an erection, and ending with his orgasm. Sex never continued after a man’s orgasm’ (p. 73). Visually the focus is on the female body—yet the agency or action revolves around the penis—the penis is rarely shown, except with the cum-shot, as the visualisation of the penis is the most taboo of sexual taboos.

• Action tends towards starting with fellatio of male(s)—then vaginal or anal penetration—the scene always ends in the cum-shot (p. 74). Lots of anal sex—lots of actresses looking uncomfortable with anal sex.

• Actors, both male and female, are predominantly, overwhelmingly white—breasts on women predominantly large (p. 74).

• Various levels of violence—some evidence actresses were not entirely physically comfortable with positions—male actors taking pleasure in female vulnerability and pain (p. 83).

• Stereotyping of races—always inferior to whites—especially white males—everybody inferior to white males (p. 84).

The Dines and Jensen survey was conducted in 1998. In 2008, Australian researchers released *The Porn Report* (McKee, et al., 2008). This is a sociological survey of contemporary pornography used in Australia in the first decade of the 21st century. The authors were attempting to distinguish between the kinds of portrayals of pornography users created by the media and anti-pornographers, such as the anti-social addict and women-hating deviants, with a more objective analysis of the types of pornography users—including women.
McKee et al. (2008) argue there is a lack of adequate information about pornography users even as pornography content is more widely available than ever. The survey looked at not only the cross-section of ages, sexuality, education levels, income levels, and users’ consumption behaviour but also whether modern pornography was as misogynist and violent towards females as anti-pornographers would portray, or has been documented in previous decades by researchers such as Jensen & Dines (1998).

McKee et al. (2008) surveyed the leading 50 top selling DVDs in Australia, studying the content for violence towards women, sexual objectification and equality of representation of pleasure. The authors argue that there has been a shift since the 1970s in the style and content of mainstream pornography. They argue that women are now greater consumers of pornography particularly within couples or relationship scenarios, and that is having an affect on the way women are being represented in DVDs/videos. McKee et al state (2008, p. 57):

...there is now a strong market in ‘couple’s pornography’. These are pornographic films that are aimed explicitly at a joint viewership of men and women. They are still as sexually explicit as earlier videos but appeal to traditional notions of female pleasure, and have much higher production values and more complex story-lines and characters.

McKee et al. (2008) have found very little evidence of representations of violence towards women either within the DVDs or through a survey of material available on the internet. They found that out of the 838 scenes, only 16 scenes or 2% ‘contained an element that might be described as violent’ (2008, p. 53). They suggest that the depictions and agency of women in video pornography has changed since the 1970s.
The research team also surveyed the types of sex acts performed by men and women, noting the amount of time given to male or female pleasure, that they argue is an important indicator around charges of discrimination within pornography. As discussed above, traditional pornography puts male pleasure at the centre of the action with male arousal and climax defining the agency of the scenes.

While the researchers state that the action has a wide variety of experiences, overwhelmingly they observed that it still revolves around acts relating to male pleasure. The difference in screen time, for instance, between oral sex performed on a man by a woman (15 hrs 26 mins) compared to oral sex performed on a woman by a man (4 hrs 45 mins) is nearly 4 to 1. Various different types of penetration of women (41 hrs 43 mins) outweighs any other forms of pleasuring females (7 hrs 59 mins). The researchers state (McKee et al., 2008, p. 65):

...in 12 percent of sex scenes, both genders had orgasms. In 4 percent of scenes, only women had orgasms. But in a whopping 68 percent of scenes, only male characters had orgasms. It’s clear that women in mainstream pornography aren’t having enough orgasms – and, perhaps, are still not having enough sexual pleasure, for all of the sex that they are actively initiating.

This suggests that while some conventions of pornography are changing, such as a decline in violence towards women, women having more agency within films, some films using a female perspective and films showing more female pleasure—there is still an imbalance weighted towards male pleasure, male orgasm and male erection. This I will show in the next section affects the types of products produced as the visual language of adult industry sex toys is embedded with the male-centric bias of traditional mainstream pornography. This is important to the research questions in understanding the historical and current taboo perception of sex toys, as it further highlights the affect of the relationship between sex toy manufacture and the broader
adult industry. As discussed in the previous chapter, an industry reflecting Victorian sexual ideals, in particular around the centrality of the penis to the sex act as discussed by McIntosh (1992). I argue that pornography’s Victorian male-centric bias is at odds with various contemporary female target markets that allows for design and branding differentiation in the research design project that is documented in Chapter 5.

**Adult Industry Conventions Reflected in Sex Toy Production**

These standard conventions being reflected in the products of the mainstream sex toy industry then become an area for consideration. The following is a visual analysis of mainstream product. The following review is a cross-section of product from three main sources, the Topco and Doc Johnson online catalogues and the Beate Uhse retail online catalogues. This review is not a quantitative study. It is meant to represent the types of mainstream product available and their categorisation into sub-genres for further analysis. It is expected the reader would reasonably be able to come to the same conclusions from looking through the three sources, or understand the justification for the categories. I considered Topco and Doc Johnson as being representative of adult industry aligned producers and Beate Uhse as representative of an adult industry distributor and retailer. As discussed previously, Beate Uhse is the industry’s biggest distributor of products and both Topco and Doc Johnson promote themselves as two of the biggest global manufacturers.

The types of product reviewed are a majority of vibrators, vibrating dildos and non-vibrating dildos. These are products that are aimed at a female consumer. I have included some male-targeted products in the ‘body parts’ category as they are still visible in retail environments and have come to typify certain conventions of the sex toy industry. They help explain the relationship between conventions of the two industries.
Sex toys are categorised as novelties within the adult industry statistics and dildos and vibrators appear as the largest categories by volume of product. I have categorised the products into five distinct categories: phallus objects, body parts, novelty, techno, aliens and simplified. All of these categories have examples of hybridised objects where aspects of other categories are combined, for instance, phallus objects are combined with techno features. Figure 3.5 is a composite image of the categories. At a glance it is representative of what the public recognises as typical adult industry product.

**Phallus Objects**

This category has literal interpretations of the penis in a seemingly endless supply of size, shape and colour—‘realistic’ with veins and glands or more stylised or simplified as shown in Figure 3.6; solid silicone or combined with vibrators to create vibrating dildos. These were the first products on the market from the 1970s and have come to represent the sex toy industry. In Figure 3.5 (third product from left, top row) the ‘classic white 8 inch dong’ from Doc Johnson was their first ever product and is still in their catalogue.

The ‘mini classic’ simplified shaft vibrators in Figure 3.7 refer to the type of anonymous product available in the post-World War II period. Blank & Whidden (2000, p. 17) describe these products as:

> ...battery vibrators sold in novelty stores and through women’s magazines in the forties through the eighties – and still today – were white, hard plastic, of sleek design, and appeared somewhat antiseptic.

Blank & Whidden (2000) state a problem with the penetrating dildo of the last century was that no instructions came with the product (2000, p. 18):
...with this kind of vibrator, many a woman spent hours shoving it in and out of her vagina, wondering how long the batteries would last and why she didn’t feel a whole lot ... Undoubtedly, the shape of the toy contributed to the belief that we were ‘supposed’ to use it internally instead of on the clitoris.

**Body Parts**

These are shown in Figure 3.8. On the whole this category contains literal or ‘realistic’ depictions of various body parts. Even though it is safe to say that these products are made for a male target market, I have included them for a number of reasons. They are a visible presence of the products available and while not appearing in retail that is designed exclusively for women, they appear extensively in retail that is designed for both men and women—which is the majority of the retail market. They give the sex toy industry a distinct look and follow a number of the conventions of the porn industry very closely (discussed later in this chapter). They range from well-made realistic copies of female pornography stars’ body parts—particularly vaginas, anuses and breasts—that are marketed under the star’s brand name, to quite poorly made replicas. There are hybrid products that are unreal combinations of female body parts—breasts and a mouth or breasts and a vagina in the middle of the breast or an abstracted body part such as a mouth or anus attached to a shaft.

The only product I could find for this category for females was a vibrating tongue product. However, the female version of this category is the previous category of phalluses—which are also abstracted literal body parts.

**Novelty Products**

These are shown in Figure 3.9. The products in this category revolve around depictions of animals, gimmicks or the use of celebrity for blow-up sex dolls. Sex dolls could also be included in the previous category, except when they are out of the
box and blown up they are very unrealistic depictions of humans – almost cartoon characters. What sells these products is the packaging that promises one an experience with a ‘real’ man or woman—in particular a favourite pornography star—it is a gimmick. Other gimmick products are those disguised as other objects such as lipsticks or mobile phones and the use of animals to create cuteness or fun. This use of animals and novelty comes from the need to hide the function of sex toys as they have been illegal and still are in some parts of the world—either to sell or use—as discussed in the previous chapter. It has also been handy for producers to hide behind the novelty/toy label and avoid responsibility for bad or unsafe products. The most famous of the novelty products is the now iconic Rabbit vibrator made famous by its inclusion in a Sex and the City episode in 1998 (Avril, Kolinsky & Fields, 1998). The contemporary version of the rabbit is included in the techno section as a hybrid product as the original rabbit novelty design has been fused with a technological aesthetic.

Techno Styles

These are shown in Figure 3.10. In the late 1990s Doc Johnson introduced a new aesthetic to the industry by releasing the Pocket Rocket (first left, Figure 3.10). It was unashamedly based upon the successful iMac series by Apple Mac, which created a styling craze in product design for a number of years globally by using colourful see-through plastic casings. This was referenced by not just the sex toy industry as other products copied this aesthetic or the name iMac and applied it to some other product. The Pocket Rocket was labeled the i-vibe and the novelty product, the rabbit, was transformed into the i-rabbit, with styling elements of both the rabbit and the iMac being fused. So called technical innovations such as multiple vibrating pulsation began to appear and control panels became more pronounced and obvious. This techno-look became fused with other all other genres and it can appear mixed with phalluses and novelties.
In reality, very little technological innovation takes place within the sex toy industry—it is an aesthetic device borrowed from other products to give the appearance of newness, progress or innovation. The main features of this category are see-through casings, large control panels with features and trendy names like i-vibe or pseudo tech names like Platinum Fusion.

**Aliens**

These are shown in Figure 3.11. This category is typified by the strangest looking products within the product design field. Hybrids have been mixed and matched from combinations of other genres: some are just plain weird, others frightful—they resemble alien creatures. Some of these products are better attempts at reflecting female ergonomics, yet the combination of too many other genre attributes creates overly complicated, confused and bizarre combinations. These kinds of products typify the lack of proper product design innovation. Genres are mixed, matched and manipulated over a period of decades, new colours, finishes or extra components used on old product designs, in an attempt to provide new designs. The result can be a hideous, over-the-top mixing of different product attributes. I argue that a product with a complexity of visible components is no excuse for unresolved, unbalanced and incoherent forms. Contemporary motorcycles, for instance, deal with a high level of visible complexity, yet these products manage to display a highly resolved, balanced coherence.

**Simplified Products**

These are shown in Figure 3.12. This category is typified by a simpler product that has the aesthetic of a simple appliance rather than a body part. The first of these products were the simplified shafts of the first vibrating dildos as discussed in the phallus objects section. Slowly the industry has developed smaller, clitoral devices especially after the success of the Doc Johnson Pocket Rocket.
These products are taking styling cues from mainstream product design or being influenced by sex toy manufacturers developing stylish niche female-centric product, who are creating companies from outside the adult industry (to be discussed in Chapter 6). This has only been in the last few years, and I argue, only because of competition from product design companies outside of the adult industry developing products with values away from traditional pornography symbols and conventions.

**Pornography Conventions in Sex Toys**

As sex toys are objects/products and not literature or visualisations of sex acts, some of these conventions are not quite so obvious with the descriptions from the Jensen & Dines survey (1998) and McKee et al. (2008) discussed earlier in the chapter. However, some are directly comparable. They are:

- The centrality of the phallus/penis to the sex act.
- The sexual objectification of both male and female body parts—into abstract but very literal interpretations of sexuality.
- The sexual objectification of females in packaging and branding material.
- The repetition of product genre and lack of innovation.

The phallus genre of sex toys has been the flag bearer, standard and sign for the sex toy industry since its re-emergence in the 1970s. It has long dominated the volume and type of product that has been available, until very recently when clitoral devices have become more popular and available. It mirrors the conventions of the adult industry video output where the penis/phallus is central to the agency of the sex act. As a symbolic object that was the majority of product available for females, they represented longstanding Western sexual ethos that the penis was central and essential to female sexual pleasure (Maines, 1999; Segal, 1992a). Even if the female consumer were not physically having sex with a man – she still needed a fake penis to
have sexual pleasure on her own. They represent an industry inwardly focused on the ideals of its main target market: heterosexual males.

Functionally, as Blank & Whidden (2000) point out, they can be rather unsuccessful for stimulating female genitalia. Traditionally vibrating phalluses conformed to designs that put the vibration in the wrong part of the product. The original vibrating shafts now repackaged as ‘classics’ have the motor components at the wrong end of the product. The motor is in the handle, and any woman trying to use this on her clitoris got more vibration in her hand than anywhere else. Also, as Blank & Whidden (2000) point out, the shape of the product implies a penetrative function, which has a purpose to providing a feeling of volume in the vagina, mirroring that of the penis. There is a certain type of pleasure to be gained from penetration. But, the vagina has very little overall nerve endings in comparison with the clitoris and areas such as the g-spot which have potential for stimulation in some women and need a different shaped product. The vibration function of these types of product, which is maximised in the handle, gets nowhere near either the g-spots or the clitoris, which may benefit from such stimulation. The motor placement meant that one’s hand gets vibrated much more than ones clitoris does.

The industry has persisted with this type of product for decades. This may explain the rapid success of clitoral stimulator devices, where the clitoris is getting the full benefit of the motor vibration and a small number of newer niche companies that are designing product with a better placement of motors specifically with female ergonomics in mind. However, the original vibrating shaft products are still widely available and in some cases marketed as cool retro classic devices as shown in Figure 3. 7. The literal-looking phallus dildo or vibrating dildo is still of significant volume in the range of products produced for female customers.
There is not anything specifically wrong with a female wanting to use a literal phallus for some act of sexual pleasure, rather, I suggest that for decades these products were the ubiquitous standard and sign for the industry and little variation was available. Both symbolically and functionally, they represented a misplaced but longstanding idea that the penis is central to female pleasure and an industry so male-focused that it lacked the most basic of considerations or knowledge of female sexual physiology that may have developed products more suited to female sexual functioning, or a range of varied aesthetics beyond the phallus type.

Another convention of the adult industry is the sexual objectification of both male and female body parts into abstracted but highly literal forms. This is evident in both the phallus and body part genres. This is typical of the content described by Jensen & Dines (1998). The focus is predominantly on the female body, an abstraction of female body parts, particularly orifices (for video) breasts, more for soft-core magazines. Popular sex toys in this category are replicas of vaginas, anuses, breasts, mouths and penises.

What is interesting is that even though the phallus genre can be described as sexually objectifying the male body, there is a significant cultural difference which is paralleled in mainstream DVDs. The literal penis is a phallus that represents male power. Its purpose is to be always central to the female act, whereas the abstracted body parts of females are for male sexual pleasure, designed to be dominated and sexually penetrated. As one of the mainstays of the sex toy industry they represent a lack of imagination an innovation for female customers. In general, as the type of objects that have represented the industry for decades, the graphic depictions of genitalia, has reinforced the taboo status of the industry.

The packaging shown in Figure 3.13 parallels a number of marketing tactics used within the adult industry. A number of female (and male) pornography stars release
ranges of accessories and sex toys. Most common for men is the blow-up doll marketed by the brand of a pornography star in vogue. These can be under the star’s own brand or the video company that created the star. The video companies themselves can also produce lines of product.

What is interesting about the pornography star ranges that promote product for females is the packaging. The star is often naked, in a provocative or submissive pose on the product sleeve. The packaging suggests or assumes the female customer aspires to being a pornography star. This type of packaging is used on products for female customers even without the famous star—Figure 3.13 left and right images are of the pornography star brand and the images in the middle are of a non-pornography start product packaging. As shown the non-pornography star brand will still have an image of a naked woman in a provocative pose. This has been another convention that has been around for decades. However, I have observed a noticeable decline in the use of such images on packaging recently, perhaps as the industry increasingly tries to understand the female customer as discussed by Comella (2008a). For instance, in my research I have observed that the Doc Johnson range of products has been repackaged significantly away from depictions of females as pornography stars, except on pornography star ranges. Logging onto the Doc Johnson website in 2005, one would have observed the majority of packaging depicting naked, pornography star like images. Logging onto the website since 2010, one will have trouble finding any examples.

That the industry would use the symbol of a female pornography star—the ultimate sexually objectified female—to promote a product to women consumers—is an indication that the industry has been focused on the sexual values of its male-centric audience. Retailers may have assumed that men bought the sex toys for their partners, as suggested by Athens (2005), as also until very recently the retail of sex toys was commonly the male-centric domain of the Adult book and video store. However, the
internet and the increase in female-friendly stores have dramatically increased the number of sites where women can feel comfortable consuming sex toys (that will be documented further in Chapter 6).

I argue that the repetition of the product genre and lack of innovation in product styles and packaging mirrors the commercial conventions of the mainstream adult video industry, particularly in the United States, which produces similar product in style and narrative (or lack of narrative) year after year. The freshness of the video product revolves around new pornography stars that then translate into new sex toy products with pornography star branding as shown in Figure 3.13 (left and right images). If the above categories of sex toys are compared with the following image in Figure 3.14 from *The Visual Dictionary of Sex* (Trimmer, 1978), then a number of types of products have changed little. Literal phallics, sex dolls and fake vaginas are still a similar product to the 1970s versions. What I observe has changed in those 30 years that are evident in this visual survey products are advancements in silicone technologies, a small amount of superficial product design styling from outside the porn industry, such as the iMac rip-offs and the development of smaller clitoral devices. I argue what tends to be considered innovation or progress is the rebranding, reworking or hybridisation of genres, such as the development of the rabbit into the jazzier, techno rabbit—the i-rabbit.

The sex survey information at the beginning of this chapter describes not only a majority of females as the consumers of sex toys, but a variety across age, education, income, profession, marital and sexual status. However, the survey of mainstream product that has dominated the industry for over three decades, I argue displays not only the conventions of the male-centric adult industry but a lack of variety and innovation. This is central to the research questions in a number of ways. Firstly, this survey of the types of products produced by adult industry aligned manufacturers shows the affects of broader adult industry male centric sexual ideals upon the visual
language of the products (and earlier in the chapter branding and packaging). This also I argue reinforces the taboo perception of the industry through broadcasting these sexual ideals through visual language. Secondly, the taboo status of the adult industry is also reflected in the lack of innovation in these types of sex toys. The rehashing and reworking of symbols and conventions into hybrids is both, I argue, an inward focus of the industry and a direct result of social and commercial marginalisation of the adult industry through morality campaigns and obscenity laws—which prevent commercial competition and entrepreneurship (Ruben, 1984; Schlosser, 2003) as discussed in Chapter 2.

Why industrial design is central to these issues—that will be explained in further detail in Chapters 5 and 6—is that the examples I will document of new companies using industrial design methods, will show a focus on the contemporary female consumer, as reflected in the sexual surveys at the beginning of this chapter. This is a different approach to the historical, backward looking, male-centric focus the pornography symbols and conventions that are apparent within adult industry aligned sex toy manufacture. This method produces a different outcome which I argue (and will be discussed in Chapters 5 and 6) will take the industry from a socially and commercially taboo industry to a commercially mainstream product genre.

**Evidence of a Shift toward Female-centric Products and Services**

Over the course of this research investigation from 2005-2010, I have observed that the sex toy market has gone from providing almost totally the traditional sex toy product of the adult industry—that has been created out of the production, distribution and retail networks of that industry since the 1970s, with its strong male-centric sexual focus—to the adult industry product and retail services displaying small amounts of change in regard to understanding their female customers. However, as shown in Figures 3.3 and 3.4., these changes are contradictory and confusing.
Sociologist Comella (2008a) attending the 2008 AVN trade show, documented some of the cultural shifts in the adult industry now becoming evident. Comella identifies the internet and e-commerce as ‘extending the reach and cultural visibility of an industry that for many decades existed almost entirely on the margins of society’ (2008a, p. 61). She describes a diversifying of the market—old school players such as Larry Flint sharing the spotlight with feminist sex toy businesses. She describes the ‘mainstreaming’ of sex toys from ‘upstart sex toy manufacturers interested in bringing the concept of ‘lifestyle branding’ to the adult industry’ (2008a, p. 61).

The biggest change Comella (2008a) identifies is the growing female market. She states (2008a, p. 62),

> Ask just about any industry insider and they’ll tell you the hottest growth market in the Adult Industry is the women’s market. Ken Dorfman, the National Sales Manager for Doc Johnson’s, one of the largest manufacturer in the world, explains it in this way in the expo’s Show Guide: ‘One guy shopping alone – average sale $8. Two guys, $12. But one female shopping alone – average sale $83. Two females shopping together, $170’.

Panelists from the What Women Want forum Comella (2008a) documents, said female customers want quality, beauty and pleasure, something that works well and lasts a long time. They want to be educated and access information about sex and sexuality. Comella (2008a) also discusses the challenges to the traditional retail profits of the adult industry as the new generation of sex toy manufacturers are now able to push into mainstream retail. Consumers are able to by product at Wal-Mart, CVs, Walgreens, or Sharper Image (2008a, p. 63). In Britain the Durex range is available across the country at Boots Chemists and Superdrug (Barnes, 2004).

Comella (2008a, p. 63) describes the state of the adult industry as,
A powerful reminder of just how diverse and dynamic the Adult Industry is. There is no single, uniform market represented here, but numerous markets and various sexual taste cultures and publics—male, female, mainstream and alternative, vanilla and kink not to mention transgender, straight, and queer. This reality is very often overlooked or intentionally downplayed by detractors who are unable or unwilling to see the adult industry as anything other than a bastion of male-oriented consumption, which at its core, perpetuates the exploitation of women.

Despite Comella’s position, I argue that the varied representations of taste at the AVN trade show cannot overcome the volume of male-centric product, and the traditional adult industry aligned companies that still control, manufacture, supply and retail sex toys and other adult industry products. The variation that Comella (2008a) talks about is an example of the future—we are not there yet. The vast majority of pornography and sex toys made, supplied and retailed are still the type of male-centric product documented in this chapter and they are a result of the social and commercial marginalisation of the broader adult industry and this continues to entrench the industry’s taboo status.

Shifts towards really understanding or providing for the female consumer from traditional adult industry companies are cosmetic and innovation and change towards the female consumer is being driven by design companies from outside the adult industry (that will be documented in chapter 6) and the original feminist sex stores (that I will document in Chapter 4). Comella’s description of ‘upstart sex toy manufacturers interested in bringing the concept of ‘lifestyle branding’ to the adult industry’ (2008a, p. 61) are, as I will document in Chapters 5 and 6, industrial and product designers bringing competition, product and brand differentiation to the market. They are from outside the adult industry, which is significant in that their products and services move away from traditional adult industry norms.
An example of how an adult industry aligned company has attempted to attract a broader female demographic is Topco’s line of products called Grrl Toys. From a company press release retrieved in 2008 titled *Topco Sales Debuts New grrl toyz*—this range of products were promoted as being designed by women for women in an attempt ‘to appeal to younger female consumers rather than scare them off’ (Topco Press Release, 2008). The new range has a less pornographic aesthetic with no literal interpretations of genitalia and the packaging containing no images of naked women. Even though the Grrl Toys range is being promoted as designed by women Topco does not mention in any promotional material the names of the female designers or what qualifications they have to be designing sex toys. They do not state the differences between this new brand of product and other brands other than superficial changes to non-pornographic, simplified shapes, bright fun colours and more female-friendly packaging.

From what I observed from the product catalogue on their website, the Grrl toys range is redesigns of existing or similar product and the claim for being designed by women appears to have come more from a marketing strategy than a brief given to female industrial designers to research the varied needs and desires of contemporary Western women. In 2008 Topco said on its website over 75 per cent of the sex toy market is female, and this product line could be considered a response to the recognition by the adult industry of the growing female segment.

Certainly, as I have observed, the non-pornographic Simplified type of sex toy (as shown in Figure 3.12) has grown from being a very small percentage of product available on retail websites, with very few choices, to a much larger and more diversified segment within the past five years. Particularly on sites for retailers such as Beate Uhse, where the site has specific sections for female customers, this type of product would now make up at least 20% of available product. I argue these Simplified products, increasingly taking styling cues from products outside the adult
industry, will be one of the biggest growth product areas for sex toys. This type product will be discussed in greater detail in chapters 5 and 6 on the future trends of the industry and how product design standards and values from outside the adult industry are changing the standard and type of product available to female consumers.

I have observed that packaging for female products has become less the pornography star convention (as discussed in the Doc Johnson example earlier in the chapter) and some products themselves have become better designed for the female body. Some companies such as Topco publicly recognises the majority of their product is consumed by women (75%), some trade show events run seminars on female customers as documented by Comella (2008a) on the AVN *What Women Want* forum, and major retailers such as Beate Uhse change their branding and websites to create what they believe are a more female environment.

While there is a growing number of female-centric product, I argue the majority of sex toy product is still produced by a small number of large players such as Topco or Doc Johnson and it conforms to decades-long conventions of what a sex toy should be—five years ago this was the state of the market with little variation. Companies established from outside the adult industry (that will be documented in Chapter 6) such as Lelo, Jimmyjane and Je Joue, and my own research example documented in Chapter 5—Goldfrau; have in the last decade developed product and brands of higher quality, displaying strong female-centric values. These companies, I argue are creating new benchmarks for sex toy product design that is influencing the design and standards of traditional adult industry aligned companies. This is creating clear distinctions in some retail outlets, such as those documented in Chapter 6, where owners wish to brand themselves away from adult industry norms, and overlap in those more traditional adult industry retailers that are providing a higher quality, more female-centric product range in amongst their more traditional adult industry products and services.
This niche female market is challenging decades-old adult industry norms and having success retailing and marketing outside of it. Hewson & Pearce (2011) state their market research into new niche market now contributes to 7% of total annual global sales of sex toys. The adult industry is displaying uncustomary attention to female consumer needs as documented in Comella (2008a), nevertheless, I argue at this stage it is a thin veneer of female-friendliness and not the user-centred female centric approach of the companies I will document in Chapters 5 and 6. It is feasible that if this market share grows and female consumers continue to buy a higher quality product, aesthetics aside, there will be further overlap between the practices and cultures of the adult industry orientated companies and the industrial design producers. The differences articulated and shown in this thesis between the professional and cultural practices of the adult industry and the industry design practitioners will break down further.

As described in the What Women Want forum (Comella, 2008a) higher-quality product outcomes with a varied non-pornographic aesthetic and a new generation of female-centric retail environments, which will be the focus of chapters 5 and 6, is developing. This is still the minority of the market but these companies are setting new standards and benchmarks and providing female consumers alternative products and sites of consumption. Understanding and evidencing trends in regards to female sex toy consumers, and where those trends are being initiated from, is important to answering the research questions. While large adult industry aligned sex toy manufacturers like Doc Johnson and Topco are aware of the female consumer and the potential of that segment of the market as discussed above, their responses I argue, are cosmetic in the form of changes to packaging or marketing tweaks. The review of product described in this chapter shows that their product ranges conform to decades long functional and stylistic conventions, even reflecting Victorian understandings of female sexuality. The companies addressing and responding to the contemporary female sex toy market are from outside the adult industry—these are design
companies, using industrial design methods (which will be the focus of chapters 5 and 6). Taking a realistic and objective understanding of contemporary female consumers, which is inherent in my example of an industrial design process, is central. I argue to creating a commercially mainstream product genre that strips the product and brand of pornographic associations.

Summary

The emergence of the modern sex toy industry in the 1970s within the commercial networks of the adult industry created a range of products displaying the male-centric values of the adult industry’s major target market, the white heterosexual male. None more so than the iconic literal penis dildo or vibrator representing longstanding Western sexual ethos of the centrality of the penis to female sexual pleasure. Product ranges were dominated by literal depictions of sexual body parts, blow-up dolls of pornography stars or novelty sex toys attempting to disguise functional use with a gimmick. Technical or aesthetic innovation was limited, involving an incremental mix-n-match of styles, colours or finishes rather than significant product innovation.

The adult industry, the modern producers of pornography, has been targeted for harassment and censorship through legislation or morality campaigns since the Victorian era. This taboo status has prevented an honest and wider engagement with other professional industries such as the design and commerce. Retailers, distributors or publishers potentially ended up criminals because they chose to make or distribute the types of products law enforcement agencies and legislators liked to label as obscene. This taboo status is conferred upon sex toys not only because of the direct relationship with the adult industry networks but the aesthetics of the products, predominantly literal interpretations of genitalia that reinforce social taboos.

Even though female sex toy consumers outnumbered male consumers, products conformed to the male-centric values of the adult industry. The review of available
sexual health surveys into sex toy use shows significant use across all demographics of women in age, sexuality, marital status, income and profession. The visual survey of sex toy thematics shows a limited range of product types around the traditional values of the adult industry—the needs of a broad range of potential female consumers, I argue, are not being addressed with this narrow range of types.

Sex toys themselves were squeezed between the heteronormative, male-centric socio-cultural notions of obscenity as defined by church and state control (discussed in Chapter 2) and the heteronormative, male-centric conventions of the adult industry, which produces distributes and retails the majority of sex toys globally. Neither of these puts the needs of the female consumer first and both displayed misunderstandings of female sexual needs and desires plus the right of all consumers to use products that are non-toxic and safe. Both forces and groups are examples of the social control or misunderstanding of female sexuality manifested in two different, competing but related ways.

The adult industry has identified a growing female market and is making incremental changes to toy production and retail branding. However, traditional companies are attempting to straddle two very different target markets in the same brands, resulting in confused messages that still strongly promote the usual stereotypes of females as ‘wanna-be’ porn stars. This leaves the door open for a number of innovative producers and retailers from outside the adult industry to creating new benchmarks for female consumers. These companies will be discussed in chapters 5 and 6.

While Chapter 2 discussed the taboo perception of sex toys due to the labeling of this product genre as obscene, entrenched by the association to pornography and inclusion within legal and social moral debates; this chapter has looked more closely at how the symbols and conventions of that association with the modern adult industry directly affects the product outcomes, branding, and marketing of sex toys to female
consumers. I argue the male-centric values of pornography embedded in sex toy manufacture and marketing further entrench a taboo perception of the industry. I also argue that the traditional male-centric values of pornography are a miss-match in producing product for a contemporary female consumer. This is central to the research question in that by directly addressing the concerns of the contemporary female consumer, and not the symbols and conventions of traditional male-orientated pornography— as part of an industrial design process—will produce products and branding outcomes that will be commercially mainstream and reduce, if not dissolve the public perception of sex toys as taboo. This will be further documented in Chapters 5 and 6 on how industrial design methods create this differentiation away from adult industry aligned sex toys.

In the next chapter, I build on the outcomes of Chapters 2 and 3 by discussing the sexual ethos of the adult industry in relation to the development of the Victorian vibrator industry 100 years earlier. Drawing on the work of Maines (1999), I develop an argument that despite technological and aesthetic differences, both industries have developed out of the same socio-cultural understandings and adult industry sex toys from the late 20th century display Victorian notions of female sexuality. Chapter 4 describes the changes to sexual attitudes and female socio-economic status across these 100 years, and I argue that the adult industry did not incorporate this knowledge and attitudes into product or retailing models in the late 20th century. This is done to advance the argument that adult industry product does not cater appropriately for the broad and varied range of female demographics discussed in the sexual surveys of this chapter. This lays the basis for an alternative to sex toy design that is outlined in Chapter 5, using industrial design method that both addresses contemporary female consumer needs and creates the potential for non-taboo, commercially mainstream products that directly address the research question.
Figure 3.1. Images from Berlin Venus Trade Show 2008-2009

http://www.youtube.com/watch?v=N8F_LRJ75ac&feature=related.
Figure 3.2. Examples of Beate Uhse Corporate Branding mid 200s to 2011


Figure 3.3. Examples of Adult Industry websites—depictions of females used in branding within proximity to promotion of pornography 2008-2009
Figure 3.4. Examples of Adult Industry websites—depictions of females used in branding within proximity to promotion of pornography 2009.
Figure 3.5. Overview of Adult Industry sex toys, late 20th century to early 21st century
Figure 3.5. Overview of Adult Industry sex toys from top left going clockwise


Figure 3.6. Examples of Adult Industry sex toys, Phallus type, late 20th century to early 21st century
Fig 3.6 Sources- Examples of Phallus themed sex toys from left to right


Little Pink Leopard, Manufacturer, Anonymous. Retrieved September 18, 2009 from http://www.pabo.com/shopping/39810/Little+Pink+Leopard-237230620000.html?mid=1782&action=einzel&nPos=60&cid=204&svAffiliate=902&VID=2lt637rgtml5vhpcmtlq90n9q1

Figure 3.7. Example of Retro-themed Vibrator

Figure 3.7. Doc Johnson’s Mini Classic Vibrator, Retrieved January 20, 2011, from Doc Johnson Website, Vibrators, Mini Classic 5 Inch.
http://www.docjohnson.com/products/show?series=03&name=Vibrators
Figure 3.8. Examples of Adult Industry sex toys, Body Parts type, late 20th century to early 21st century
Figures 3.8 Sources- Examples of Body parts themed sex toys from left to right going clockwise


Figure 3.9. Examples of Adult Industry sex toys, Novelty type, late 20th century to early 21st century
Figures 3.9 Sources- Examples of Novelty themed sex toys from left to right going clockwise


The Rolling Pearl, Manufacturer, Anonymous. Retrieved September 18, 2009 from http://www.pabo.com/shopping/Vibrators/39810/The+Rolling+Pearl-237202860000.html?mid=1782&action=einzel&cid=204&svAffiliate=902&VID=2lt637rutm15vhpfmtqa90n9g1
Figure 3.10. Examples of Adult Industry sex toys, Techno type, late 20th century to early 21st century.
Figures 3.10 Sources- Examples of Techno themed sex toys left to right going


Figure 3.11. Examples of Adult Industry sex toys, Alien type, late 20th century to early 21st century

Figure 3.11. Sources from top left going clockwise on next page
Figures 3.11 Sources- Examples of Alien type sex toys from left to right going clockwise


Figure 3.12. Examples of Adult Industry sex toys, Simplified type, early 21st century—reflecting influences of new Industrial Design trends
Figures 3.12 Sources- Examples of Simplified type sex toys from left to right


Figure 3.13. Examples of packaging and branding of sex toys for female consumers from Adult Industry providers.
Figure 3.14. Examples of Adult Industry sex toys, mid 1970s

Chapter 4

From the Victorian Medical Vibrator to the Adult Industry

Recreational Sex Toy

In Chapters 2 and 3 I discussed the relationship between adult industry aligned sex toy commodification and the pornography industry. This was undertaken to argue that there is a historical basis for the perception of taboo in regard to sex toys that affects sex toy production by reflecting the historical symbols and conventions of pornography in contemporary products. I then used the outcomes of sexual surveys to show that the majority of sex toy consumers are female; the demographics showing that these were from a broad range of age groups and trending towards those with higher income, education and professional levels. I argue that contemporary adult industry aligned companies are producing products with Victorian values of female sexuality through the use of historical pornography symbols and conventions. The contemporary female consumer base, I argue, is at odds with these sex toys which are commodified within the adult industry, reflecting the symbols and conventions of the pornography industry and its traditional male-centric consumer. This focus on the contemporary female consumer becomes central to the research question in Chapter 5, through the research design project. That is putting a realistic understanding of contemporary female sexuality at the centre of design considerations will result in a commercially mainstream product, and product and brand differentiation away from adult industry symbols and conventions.

In this chapter I further the argument that the sex toys of the adult industry aligned companies, despite the sexual revolution of the 1960s and 70s display and embody Victorian attitudes to female sexuality. This underlying sexual ethos manifests itself in the physical attributes of the products like the phallic dildo or vibrator and the porn star packaging and branding stereotypes as shown in Chapter 3. In developing my
argument, this chapter compares the products of the adult industry in the late 20th century with the Victorian vibrator industry focusing on the socio-sexual attitudes of the eras in which they were produced. My argument draws on a detailed analysis of Maines (1999) to describe the socio-cultural sexual influences on the creation of a vibrator industry in the mid to late 19th century, and the widespread use of these products by the medical profession to treat Victorian women for hysteria. I trace the remnants of this industry through the 20th century as it is overtaken by the overtly sexual products of the adult industry in the 1970s, and compare the emergence of the type of sex toy discussed in Chapters 2 and 3 with the changes in knowledge and attitudes to female sexuality across the 20th century.

The comparison between the medical vibrators of the Victorian period and the recreational sex toy of the adult industry, that I will discuss in this chapter, when mapped against the western sexual ethos that developed both industries 100 years apart, indicates that although the adult industry sex toys are technically and functionally different from the Victorian counterparts and developed in a period of increased sexual liberation, both industries products reflect the same socio-cultural understandings of female sexuality. I use this history to argue that the products of the adult industry at the end of the 20th century are not appropriate, suited or specifically developed for a broad variety of contemporary female consumer. This argument both addresses the sub-questions of why the sex toy industry remained socially and commercially taboo at the beginning of the 21st century, and highlights the lack of focus on the needs of contemporary female consumers, which becomes central to the industrial design method used in Chapter 5.

I also use this historical analysis to frame an argument that products are more than the technology which underpins them by introducing the concept of socio-cultural meaning as embedded in Victorian era products. While it may be possible to make this argument for all mass produced products, I focus my argument and examples
specifically on sexuality. I then discusses the shifts in socio-cultural sexual ethos across the 20th century to show that the changes in sexual knowledge or attitudes, even though profound, did not affect the types of product mainstream adult industry sex toy producers developed and marketed at the end of the 20th century.

In tracing the transformation of sex toys over the period of 100 years against the shifts in socio-cultural ethos it is possible to identify the potential for future transformation of sex toys and the attendant shifts in socio-cultural ethos that are the focus of the last chapters of the thesis. In Chapters 5 and 6, I discuss what types of products or methods can produce products that reflect a more contemporary and realistic understanding of female sexuality in the new millennium. This I argue is central to the industrial design method used in Chapter 5 that creates commercially mainstream products.

**The Victorian Vibrator Industry**

One of the few historical texts written specifically about the history of vibrators is *The Technology of Orgasm: Hysteria, the Vibrator and Women’s Sexual Satisfaction* by Maines (1999). The vibrators of the Victorian period may appear to be distinctively different from modern products because of technology changes, which are discussed in later in this chapter, but such differences mask the similarities that exist within a socio-cultural context. Maines’ (1999) research examines the link between sexual ideology and social constructions of gender, technology and mass production. These links will be discussed and compared to products of the modern era later in the chapter. Despite 100 years of medical and scientific progress within the fields of biology and sexology, a number of Victorian notions still remain. These notions continued to affect the industry at the end of the 20th century and its relationship to wider society, in particular the public perception of taboo.
Maines (1999) documents in the late 19th and early 20th centuries a vibrator industry developed in Europe and America to treat women for the symptoms of hysteria by massaging the pelvic area to induce orgasm in the patient. She argues that this treatment for hysteria—which we would now call masturbation—was sanctioned at the time by doctors as a medical treatment and commonly available in health spas and clinics in the Victorian era. Bullough (2002) says masturbation at that time was condemned by society if self-performed by both men and women, and female sexuality was highly regulated by society. He adds fear of children or young people masturbating was one of the key moral panic themes of the Victorian period.

Bullough (2002) argues that from the 17th and 18th centuries onwards in Western Europe, medical opinion was such that masturbation was not only sinful but also dangerous to one’s health. By the 19th century ‘a virtual flood of literature against masturbation from a great variety of “authorities”’ (2002, p. 28) was available and further moral panics developed around preventing children from engaging in what was represented as self abuse. Bullough (2002) documents that various products and services existed, ranging from chastity-style baskets for young girls that fitted over the vulva, to penis sheaths for boys, to extreme cases of cutting the foreskin to increase discomfort, or clitoral or labial surgery. In societies, such as Victorian England and the United States that publicly attempted to restrict masturbation and frame it as sinful and unhealthy, the question of what made it legitimate for middle-class and upper-class women to frequent clinics that masturbated them with emerges, which is the focus of Maines (1999) text.

Maines (1999), a historian of needlecraft, became interested in documenting the Victorian vibrator industry when she observed advertisements for vibrators in homeware catalogues from the early 20th century. She questioned why a product that was still so socially taboo at the end of the 20th century would appear for sale alongside other domestic goods one hundred years earlier, in a period known for its
strong socio-sexual taboos. Her research found a large, thriving and respectable industry that treated middle class Victorian women for hysteria, with treatments developed through the leading edge technology of the day by socially camouflaging the service of clinical masturbation as a completely medical procedure. This she realised was only possible because the acceptance of such an industry and practice reflected a number of widely-held views around the sexuality of middle class Victorian era females. The products of the vibrator industry represented and embodied a range of sexual and gender ideology of the period.

Maines (1999) argues that medical practitioners were able to treat females for hysteria through massaging the pelvic area (in particular the clitoris) because medical and scientific views of the day had defined the sexual act as centring on penetration (between a man and a woman) and the clitoris and its role in female sexual physiology was completely dismissed. She is adamant that to the Victorian practitioner, massaging the clitoris was a completely unsexual act. Normative sex was considered to be solely about penetration between a married man and a woman, what she calls the ‘androcentric’ model (1999, p. 5) and within that female sexual pleasure was secondary to the male orgasm. Female sexuality was so misunderstood that it became defined extensively as the disease hysteria (since ancient times), to be controlled and medicalised in a rational and scientific way. Female sexuality had become pathologised.

**Hysteria Treatments and the Androcentric Model of Sex**

Maines (1999) explains the dominant androcentric model of coitus—which has a history in western culture dating from ancient times and continues to have an influence on modern western culture—was widely accepted as normative during the Victorian era. The androcentric model of coitus as sex revolves around the penetrative act to the exclusion of other forms of sexual pleasure. Maines states (1999, p. 5):
The androcentric definition of sex as an activity recognizes three essential steps: preparation for penetration (‘foreplay’), penetration, and male orgasm. Sexual activity that does not involve at least the last two has been popularly or medically (and for that matter legally) regarded as ‘the real thing’. The female is expected to reach orgasm during coitus, but if she does not, the legitimacy of the acts as ‘real sex’ is not thereby diminished.

This understanding of sex is at odds with the evidence that the majority of women cannot have an orgasm through penetration alone (Whipple, 2007). Foreplay and the engagement of the clitoris are essential for the majority of women to reach sexual satisfaction or orgasm during sex (Chalker, 2002). Maines (1999) argues that the androcentric model dominant in the Victorian era—which favoured penetration and privileged male orgasm over female sexual satisfaction—defined the majority of women as abnormal or frigid and, given this, displaying some of the symptoms of hysteria. The importance of female orgasm been denied or tied to the act of coitus and penetrative sex, and the clitoris and its important role in female sexual pleasure, had been written out of the medical texts. Maines states (1999, pp. 9-10):

The role of the clitoris in arousal to orgasm was systematically misunderstood by many physicians, since its function contradicted the androcentric principal that only an erect penis could provide sexual satisfaction to a healthy, normal adult female.

This is significant in the establishment of a vibrator industry as using massage to the pelvis for the treatment of hysteria meant that there was no overt sexual significance of such an act, as treatment did not involve any penetration of phallic instruments.

Maines (1999) argues that the common medical understanding that did not associate the clitoris with sexuality nor understand it as an erogenous zone, allowed the development of the vibrator as a medical tool in the treatment of hysteria. This form
of masturbating female clients to orgasm, either manually or mechanically by physicians or midwives, reached its zenith as a treatment in the late 19th and early 20th century. While self masturbation remained taboo, Maines (1999) details medical stimulation as being socially acceptable because it was treating the symptoms of a disease (hysteria) and the clitoris, the area that treatments targeted, was not considered an erogenous area of the female body. The treatment was in no way a threat to the androcentric model of sex as it did not involve penetration and the medical profession did not prescribe self treatment at home.

Maines (1999) argues women were not considered sexually unsatisfied by their husbands but in the grip of hysteria, a range of common female complaints caused by weak female physiology and biology, delicate emotional/mental dispositions and not the social or sexual constrictions placed upon women at the time. Maines (1999) documents that hysteria as a disease has a constant presence in medical texts from Hippocrates through to the mid 20th century. She argues that the symptoms varied from era to era and physician to physician and became ‘conceptual catchalls for reconciling observed and imagined differences between an idealized androcentric sexuality and what women actually experienced’ (1999, p. 22), and that this was a way of understanding or explaining the differences between male and female physiology.

The range of symptoms could be anything from ‘chronic arousals, anxiety, sleeplessness, irritability, nervousness, erotic fantasy, sensations of heaviness in the abdomen, lower pelvic edema and vaginal lubrication’ (Maines, 1999, p. 8). Maines also refers to fainting spells, fluid retention (edema), frigidity or an inability to climax/ orgasm during penetrative sex, loss of appetite and shortness of breath. These symptoms are common within the normal menstrual cycle. Nonetheless, the western medical profession used these symptoms in the diagnosis of what was called hysteroneurasthenic disorders. Maines (1999) also states that a lack of sexual
fulfillment could also have contributed to some of the above symptoms. Self
performed masturbation was forbidden, men and women were not encouraged to or
given access to realistic sexual knowledge and society and the church promoted a
model of sexual activity that made sexual pleasure or fulfillment difficult to achieve
for a majority of women.

The preferred treatment for hysteria was marriage if one were young and single, but if
one were already married then it was sex with one’s husband. It was commonly
accepted ‘that only an erect penis could provide sexual satisfaction to a healthy,
normal adult female’ (Maines, 1999, p. 10). Other treatments or advice included
horseback riding, swinging in a hammock, vibrating chairs, water pressure to the
pelvic region and massage by either hand or mechanical means to the genitals. Hand
massage to the genitals was one of the oldest and most common treatments for
women with hysteria. This form of treatment appears again and again in western
medical texts from Hippocrates (ca. 460 BC – ca. 370 BC) to the 19th century. Maines
(1999) text documents that by the end of the 19th century the use of massage to the
pelvic regions as a successful treatment for hysteria lead to the production of a range
of assistive technologies.

The initial medical vibrator was un-phallic like in its construction so no connotations
could be made with the penis or the androcentric model of sex. Maines (1999) states,
that the vibrator had a social camouflage because the medical profession denied or
ignored the role of the clitoral orgasm in a normal conceptual framework of female
sexuality. Even though the exact job of the vibrator was to bring the patient to
climax—what was then termed paroxysm, which is now called orgasm—was
acceptable because the act had become medicalised and was performed by
physicians.
Maines (1999) states that previous to the introduction of the electromechanical vibrator, physicians and quacks had been experimenting with vibration or pressure as a treatment for hundreds of years. Hydrotherapy or water pressure techniques were popular from medieval times to the advent of electricity and steam powered devices in the mid 19th century. These were not just for hysteria but they were also recommended and used for a range of male and female diseases and symptoms. Maines (1999) also documents hand-held muscle massages, beaters or rollers for skin and muscle stimulation. With scientific advancements in the 19th century around the understanding of electricity and electrical current a range of electrotherapeutic devices were invented and commercialised.

Immediately preceding the invention of the electromechanical vibrator was technology driven by steam power. Figure 4.1 is an image of George Taylor’s steam-powered manipulator from the late 1860s. The device would have been restricted to physicians’ clinics and health spas, it being a relatively large and expensive device. Within twenty years the first smaller and more portable vibrator devices were on the market. Figure 4.2 is the first manufactured by Weiss and designed by British physician Joseph Mortimer Granville in the early 1880s.

Figure 4.3 is an image of one of the earliest vibrators commercialised, Butler’s Electro-massage Machine from 1888. There is a reduction in physical size from Taylor’s manipulation table. Devices like these and others that became smaller and portable would leave the commercial domain of the clinic and end up in the private home in the early decades of the 20th century.

Initially, a wide range of devices were marketed to physicians only. Examples of these devices include the Chattanooga vibrator, a top of the range model from 1900, in Figure 4.4. Fig 4.5 is an example of another device marketed to physicians, the Hanging type of Carpenter vibrator, 1904, and Figure 4.6 shows a clinic with
vibrating equipment from New York, 1904. The main advantage for the physician was that the vibrator made treatments less physically laborious (no more hand massaging) and considerably less time consuming.

The history outlined by Maines (1999) above shows how female sexuality became pathologised as a disease that was permissibly treated by clinical masturbation because of its medical status. By the end of the Victorian period perceived female weaknesses, legitimised and categorised as a disease, became interwoven with social discourses on what was acceptable or normal feminine behavior. That is, it was socially desirable for middle class women to be sickly and weak and, given this, unable to engage in education or work spheres in other than menial or repetitive tasks. The Victorian vibrator industry developed out of a range of medical understandings of that time concerning female sexuality, these included notions of hysteria and the lack of physiological knowledge of the role of the clitoris in female sexual pleasure. It is important to note that these understandings reflected a broader range of Victorian attitudes to female sexuality and socially prescribed gender roles that are discussed in the next section.

My use of Maines (1999) highlights that the 20th century began with a medically misunderstood view of female sexuality and that key elements of sexual health as discussed by Whipple (2007) and Chalker (2002), in particular the importance of the clitoris to female sexual functioning, was ignored by the medical and scientific professions. These important aspects of female sexuality were considered taboo unless regulated by the male medical profession. Maines (1999) also highlights the privileging of male sexual satisfaction, erection and orgasm over female orgasm and sexual satisfaction that is common socio-sexual practice of the Victorian era. This is still evident I argue within contemporary pornography, and as shown in the previous chapter contemporary video pornography, sex toys, packaging and branding. In the design research project, it becomes a central consideration that a realistic
understanding of contemporary female sexuality be embedded in product values to producing a commercially mainstream product and brand.

Using Maines (1999) as a starting point, this chapter argues that as scientific, medical and social acceptance of female sexuality changed across the 20th century, Victorian attitudes to female sexuality remained within the practices of the sex toy industry and as such have contributed to their continued perception as taboo. Maines (1999) documentation is used as an example of how socio-cultural beliefs are embedded in mass produced products. This is important to the research question because, as discussed in Chapter 1, I argue that changes to sex toy production have as much to do with socio-cultural beliefs and behaviours as technological capabilities. My research uses a comparison of the Victorian vibrator industry, the late 20th century adult industry aligned product and then finally, through the research design project, early 21st century industrial design industry influenced sex toy product to examine the interactions of socio-cultural sexual beliefs and technology. This addresses the research question by demonstrating that adult industry aligned sex toys, in their embodiment of Victorian sexual ideals of female sexuality has slipped behind 21st century understandings of female sexuality, and that a realistic and contemporary understanding of the female consumer, I argue, is central to moving sex toy production into mainstream commerce.

In this next section I will add to Maines (1999) documentation of the Victorian vibrator industry by discussing historical attitudes to female sexuality of the time with examples of that transferring into mass produced objects. From this position, I can show further in the chapter changes to those attitudes and whether they reflect in sex toy production across the 20th century.
Victorian Attitudes to Female Sexuality

This examination of Victorian attitudes to sexuality is used to introduce my argument concerning the dominant sexual ethos of the time and the affect of this ethos on the creation of the Victorian vibrator industry and later the modern sex toy industry. This includes an examination of what types of sexual and gender ideologies were embedded in mass produced objects in the Victorian period. This is not a comprehensive review of the entire history of sexual and gender ideologies: knowledge of western sexual attitudes dates back thousands of years. It is outside the scope of my research to give such a detailed history: in my research the relevant historical literature pertains to the interconnected debates around hysteria, masturbation, the clitoris, what Maines (1999) describes as the androcentric model of sexuality, social constructions of femininity, and how these attitudes became embedded in certain mass produced objects.

Weeks (1981) and Garton (2004) suggest that the Victorian era was far more complex in representations of sexuality and sexual practice than the common perception of a period of sexual rigidness and strict morals. Both authors discuss the period as one of sexual paradoxes. On one hand the strong social conventions, moral panics and puritanical movements by which we have come to know the era, and on the other hand a strong flourishing of male homosexuality, pornography and prostitution. Nonetheless, the moral codes for men and women were different, with issues of individual morality and behavior and its affects on keeping a cohesive social structure far more impressed upon women than men. Particularly for middle class women, morality was expressed through the maintenance of the home and their own sartorial codes. The physical embodiment of beauty representing morality in the domestic sphere was the moral rocks around which Victorian society swirled around (Sparks 1995; Summers 2001).
Weeks (1981) stresses that it would be grossly inadequate to reduce Victorian sexual practice to generalisations and he points out that sexual practice was diverse across gender, occupation, regional, religious and class groups. That discussion is not developed in depth in this chapter as it is not the diversity of practice, or the underlying moral social hypocrisy or existence of sub cultures outside of sanctioned marriage that is relevant to my argument; but the overarching sexual ethos that allowed for the development of the first electro-mechanical vibrators, which is very much related to the Victorian concepts of female sexuality, which relates to the socially acceptable moral codes for middle class Victorian women (Maines, 1999; Sparks 1995; Summers 2001).

This sexual ethos relates to long standing notions of female sexuality and ‘proper’ moral female behavior that I will discuss using examples from Sparks (1995) and Summers (2001). I argue that the social conditioning which gave rise to the first vibrator industry relates to attitudes on masturbation, the socially condoned sex act between men and women, knowledge of the clitoris and its role in western medicine and female sexuality, the framing of hysteria as a disease and the de-sexualized middle class female (Maines, 1999; Sparks 1995; Summers 2001).

Medical historian Laqueur (1997) argues that, at the end of the 18th century, medical ideas about female sexual biology and behavior changed from previous long-standing western medical models. These shifts he argues were influenced by political ideology rather than pure science and subsequently the medical notions and models came to further influence political and sexual discourses in the coming centuries, particularly around gender roles and rights. Laqueur states (1997, p. 217):

The body generally, but especially the female body in its reproductive capacity and its distinction from the male, came to occupy a critical place in a whole range of political discourses.
Laqueur (1997) argues medical science moved understandings of male and female genitals from those of a one-sex model to those of a two-sex model. He explains that for thousands of years, western medicine had understood male and female genitals as a similar structure, but opposite reflections of each other; male characteristics stood on the outside of the body and female characteristics on the inside, but they were essentially the same model. He further adds that the new biological model—the two-sex model focused on the perceived differences between male and female sexual physiology—in particular the role of the clitoris, the need for female orgasm in relation to conception and the existence or strength of female desire and pleasure.

Laqueur (1997, p. 221) states that these new medical propositions mirrored changes in social order and politics between the sexes,

> The new biology, with its search for fundamental differences between the sexes and its tortured questioning of the very existence of women’s sexual pleasure, emerged at precisely the time when the foundations of the old social order were irremediably shaken, when the basis for a new order of sex and gender became a critical issue of political theory and practice.

In his assessment, Laqueur (1997) argues that the Enlightenment period saw the rise of theories that questioned the right of any man to have power over another man. This challenged long-standing notions of social order revolving around religious and royal hierarchies. While theories abounded to the individual rights of men, new biological philosophies of female sexuality, based around new models of rational scientific method, was used to keep women subservient to males and leaving the patriarchal structure intact. He further adds that women were seen to be constrained by the affects of their reproductive systems; the weaker sex in body and mind became accepted both medically and socially. That these notions over the course of the Industrial Revolution strengthened the social normality of the female as natural
inhabiters of the domestic sphere and the male as natural to the work, political and education spheres.

By the end of the Victorian period concepts of family morality, particularly as those related to middle class female sexuality, was tightly regulated and controlled by patriarchal social structures (Sparks, 1995; Summers, 2001). The spheres of influence in Victorian society were based on gender. Men dominated the public sphere while women were responsible for the domestic sphere and the sanctity of the home (Garton, 2004). The normalised ideology regarding gender and social structure was that women were both the physically and mentally weaker sex. Women were irrational and emotional, females represented beauty and beauty represented morality or virtue and it was normal for women to be hysterical or melancholic or sickly. It was even fashionable for women to display these characteristics as weakness as a desirable female attribute and woman were un-sexual and lacking the same level of desire or libido as males (Garton, 2004; Sparks, 1995; Summers, 2001; Weeks, 1981).

Other attitudes around female sexual function such as social taboos regarding menstruation and pregnancy also contributed to a belief that females were the weaker sex and unsuitable for anything other than menial repetitive work or running a household (Garton, 2004; Sparks, 1995; Summers, 2001; Weeks, 1981).

Weeks (1981) argues that the family became the site for the socialisation of sexual and gender behavior and he states (1981, p. 25) that the home is,

...the site of both primary socialisation of children and the continuing socialisation of adults, so that socialisation becomes a deterministic notion of the way in which people are manipulated by existing structures of society.
Sparks (1995) demonstrates how this socialisation was also enacted through the symbolic structures inherent in mass produced goods. She also states that it was advantageous to the economy that overarching notions of middle-class femininity and taste embedded in commodities kept the wheels of many industries going throughout both the 19th and 20th centuries, as middle-class women became important consumers through their social roles as arbiters of taste.

**Gender Representation and Sexual Politics through Consumption**

Sparks (1995) argues that what is particular to the Victorian period is ways in which these long standing notions of morality and sexuality come together into the sites of the middle-class female body and the middle class domestic environment. Women become the guardians of moral virtue through themselves, the family unit and the family home. Both Sparks (1995) and Weeks (1981) discusses the importance of the family unit in creating a sense of security in the 19th century as traditional kin structures changed through the course of the Industrial Revolution. Furthermore, Sparks (1995) states that the home was both a representation of Christian morals and ideology and a site of status greatly contributing to economic activity.

In the Victorian period the consumption of mass produced goods was delineated by class as discuss by Forty (1986). The working classes could not afford the lavish consumption of the upper classes that could differentiate themselves from both lower and middle classes with high quality craft and artesian goods. Mass produced goods were the domain of the middle-classes and a boost to the economic powerhouses of the United States and United Kingdom. It was important economically to keep the middle classes consuming and women played a role in the levels of consumption through a continual feeding of ideals of fashion and taste revolving around what it meant to be a woman or a man, feminine or masculine (Sparks, 1995). Within fashion the ideals of feminine gender can be examined through the corset industry as
documented by Summers (2001) study on the gender ideology that developed the corset consumption in the Victorian era.

In the case of the Victorian corset industry as outlined by Summers (2001), women were physically controlled and constrained by a costume created from sexual ideology. Victorian corsets constrained and deformed the female wearer’s body by crushing the rib cage, damaging internal organs and in some cases causing miscarriage, yet it was a ubiquitous fashion item representing the feminine body ideal of the day. The corset hyper-sexualised the female body by pushing up the breasts, constricting the waist and accentuating the hips. Summers (2001) says that the corset represented a set of physical, social and sexual constrictions played out on the female. What is paradoxical about the corset is that it hyper-sexualised the Victorian female in an era where females were supposedly non-sexual. Summers (2001) explains that the costume had both to exhibit sexual attractiveness and cultivate a respectable social demureness that was a ‘complex task, fraught with peril’ (2001, p. 23) as the Victorian middle class female was also expected to be the primary keeper of families’ moral codes. Female fashion or dress had both to reflect moral behavior as well as status and taste. Summers states (2001, p. 21):

...in an era when moral behavior was determined as much by dress as by actions, and when one’s own reputation and that of one’s family could be made or ruined by appearances, it was of tremendous importance to working and middle-class women to be appropriately attired. Dressing well required a studious examination of fashion trends and the acquisition of correct foundation garments to underpin ‘agreeable and harmonious’ frocks. Ideally, middle-class female clothing reflected a husband’s or father’s economic success...restrictive clothing was instrumental in this process, for it gave women the appearance, and indeed actualized, their inability and disinclination to perform manual labour.
Notions of religion, morality and family played a part in the socio-sexual ethos that encouraged middle class women to embrace the domestic sphere, according to Sparks (1995), who says that notions of morality and goodness were linked to expressions of beauty; that women were considered to be the embodiment of beauty and, given this, they set a moral standard for the family through their own personal sartorial and household taste. The site of the home was both a display of status and wealth though objects, decoration and furnishings, and a display of values and morality through the discrimination of taste. Sparks states (1995, p. 26):

> Unlike morality, which was expressed in behavior, beauty found a direct material form in the objects and arrangements which made up the domestic interior. It was contained and expressed in the way in which middle-class Victorian women chose objects and arranged them within their homes. The values held by women became transformed, through the exercise of visual discrimination, or ‘taste’ decisions, into domestic environments which were both mirrors and embodiments of those values of the status quo.

Sparks (1995) outlines a position that sees the main ideals for women of the Victorian era were supposed to provide for the family were: comfort, security, a haven and a sanctuary. Sparks (1995) gives an example of the way comfort could be embodied in objects such as the Victorian fashion for deep cushioning on chairs and sofas. She argues that comfort or sanctuary was objectified by deep upholstered arm chairs, heavily draped curtains, patterned wallpaper, sideboards, glass cabinets and other various stands all packed with objects ranging from tea-sets to framed pictures to potted plants or flowers and other collections of bric-a-brac or natural objects such as shells and pine-cones. To the contemporary eye it would appear cluttered, even claustrophobic, however, this was considered Sparks (1995) argues, an antidote to the technological progress of the public sphere and the embodiment of morality through feminine taste.
Both Sparks (1995) and Garton (2004) discuss how the home-making Victorian middle-class wife was supporting her husband’s life in the public sphere and reinforcing the social status quo by practicing the separate roles attributed to the sexes. She was also showing society her family had a certain level of status, as a woman who had time to shop, consume, decorate, entertain, had servants and a husband with a certain level of income (Sparks, 1995).

Despite the strict moral constraints imposed on women, and in particular the de-sexualised middle class female persona, there is the rise of the vibrator industry, an industry catering to the sexual needs of these same women. From a contemporary perspective it is possible to see that Victorian vibrators were clinically masturbating female clients. In the Victorian era, the medical profession was treating female patients for hysteria, which was considered to be an emotional or psychological disturbance—not a sexual health problem.

The development of the first electro-mechanical vibrators outlined by Maines (1999) is related to the Victorian notions of female sexuality as the industry developed through understandings of female sexual functioning that were subsequently shown to be medically and scientifically incorrect (Chalker, 2000; Komisaruk, et al., 2006). The expectation of a socially sanctioned so-called proper moral female behavior which was at odds with the idea women should enjoy sexual pleasure. The need for women to be treated for symptoms of hysteria by clinical masturbation was a result of the prevailing sexual knowledge that did not take into account the role of the clitoris. The paradox of the use of clinical masturbation by vibrators in an era that promoted the ideal of females as a less sexually veracious, less libidinal being is resolved in the context of medical views that did not engage the possibility of the existence of the clitoris as being important to female sexual functioning (Maines, 1999).
The example of the Victorian vibrator industry as outlined by Maines (1999), the example of the functional and symbolic roles of the Victorian corset as outlined by Summers (2001), and the example of the relationship between female morality and the construction of domestic taste as discussed by Sparks (1995), demonstrates how socio-cultural ideals of sexuality embed in products. This is important to the research question, as I will discuss further in this chapter how the products of the late 20th century adult industry aligned sex toy companies, discussed in Chapters 2 and 3, embody Victorian understanding of female sexuality and have not responded, I argue to the changes in medical and scientific knowledge about female sexual functioning that occurred across the 20th century—nor the corresponding social changes (Chalker, 2000; D’Emilio, 1983; Garton, 2004; Goren, 2003; McLaren, 1999; Snitow, Stansell & Thompson, 1983, Weeks, 1981) that I will outline in the rest of the chapter. It further helps to answer why the sex toy industry is perceived as taboo and is central to the design research by taking a contemporary understanding of female sexuality as a core design consideration.

**From Medical to Beauty Device: the Demise of the Victorian Vibrator Industry**

By the early 20th century the decreasing size of vibrators, their portability and the wide-spread availability of electricity in the domestic environment meant the end for the exclusiveness of treatments by doctors alone. Manufacturing companies started marketing devices in women’s homeware magazines along with other newly-invented appliances such as sewing machines, food mixers, fans and heaters (Maines 1999). They were advertised in common magazines such as *Needlecraft, Home Needlework Journal, Modern Women, Hearst’s, McClure’s, Woman’s Home Companion* and *Modern Priscilla.*
Physicians’ services faced competition with those of beauty parlors for treating women for the symptoms of hysteria as well as the marketing push by vibrator manufacturers into the home market. They were marketed to women as health, beauty or relaxation devices, yet suggestive terms appeared in many advertisements such as ‘all the pleasures of youth…will throb within you’ (Maines, 1999, p. 19) accompanied by images of women vibrating their breasts or abdomens.

The medical or health premise commonly used by companies that vibration and electricity moved the blood around the body was generally promoted as curing a range of ailments. One advertisement for the company, White Cross that Maines (1999) cites says, ‘Vibration promotes life and vigor, strength and beauty’ (1999, p. 106). These advertisements claimed that these vibrators were treating conditions such as sciatica, lumbago, headaches and wrinkles and Maines (1999) states the White Cross name also refers to a British Episcopalian sexual purity movement of the late 1880s. She argues the connection between the two gives the White Cross vibrator an intended suggestion of ‘virtue and chastity’ (1999, p. 107).

However, Maines (1999) argues, the expanding of the market out of physicians’ clinics and into the direct selling homemaker and beauty market created the demise of the socially acceptable side of the medical vibrator industry as the social camouflage and respectability of being a solely medical treatment was stripped. She documents the boom in advertising and marketing vibrators in home-maker magazines continued for the first three decades of the 20th century, disappearing suddenly about 1928. The demise was swift and quick and the reasons put forward by Maines could do with further investigation that was beyond the scope of her research. She cites historian Blake and his view that vibrators appeared in some of the new erotic/pornography films starting to be made in the 1920s. She says that this kind of exposure made the social camouflage difficult to maintain but how many people actually saw these films is difficult to calculate. Also how many early video pornography films had scenes
with vibrators, and was that early media prevalent enough to affect such widespread and quick commercial change, is also difficult to quantify.

Maines (1999) argues, that the previous social camouflage used by the medical profession, was made more difficult, as men and women gained a more realistic understanding ‘of female sexual function’ (1999, p. 109) in the first decades of the 20th century. Komisaruk, et al. (2006), in their discussion of Maines’ views, offer another possible reason—the advent of psychotherapy. The authors’ state (2006, p. 46):

Medical massage disappeared from doctors’ offices in the 1930’s. This was probably because hysteria was now treated a novel procedure: psychotherapy. And it seems that when the use of mechanical stimulation became associated in the popular culture with sexual arousal and pleasure, the embarrassed medical establishment turned away from its use as a therapy.

Goren (2003) supports the argument that psychotherapy had a large influence on how female sexuality (and sexual dysfunction) was perceived and treated. She argues the growing influence of psychotherapy as a field in the early decades of the 20th century—and therefore sexuality—became a topic that was discussed more publicly.

Goren’s (2003) article is a historical examination of psychoanalysis from its beginnings through the work of Freud in the late 19th and early 20th century, to its influences later in the 20th century, on the developing field of sexual therapy. She states that Freud, even though criticized later by feminists for his theories being phallo-centric, was germinal in bringing issues of sexuality and the Self into the public domain for discussion in the early decades of the 20th century. While Freud’s theories were underpinned by the notion that men had much stronger sexual desires and urges and he dismissed the pivotal role of the clitoris in female sexual desire he...

Freud and the new field of psychotherapy were fundamental in creating the study of sexuality as a scientific medical model. Goren (2003) says, the cultural impact of this is that sexuality became a field of study that was discussed and published, ‘sharply instating sexuality in the public domain’ (2003, p. 490). This led later to the development of sexual therapy as a field of study and later in the century to pivotal research by Kinsey, the *Sexual Behaviour of the Male*, 1948 and *Sexual Behaviour of the Female* in 1953; Masters and Johnson, *Human Sexual Response* in 1966 and *Human Sexual Inadequacy* in 1970; and Hite, *The Hite Report on Female Sexuality* in 1976; as examples of sexuality studies having influence society in the 20th century on understandings of sexuality and personal sexual freedoms. Goren (2003) argues that Freud represented a new era when sexuality moved from being a community issue controlled by the church to an individual issue influenced by commerce and technology. She describes a cultural change across the 20th century in the way sexual selves are viewed, transforming from a private intimate act or experience to a technologically mediated experience, where bodies and sexuality are viewed as things that can be moderated, managed and changed through technology and commodities. This becomes more important at the end of the thesis as the documentation of socio-cultural and technological change at the beginning of the 21st century evidences the progression of this concept through sex toy commodification.

**Vibrators and Sex Toys 1930-1970s**

Subsequent to the work of Maines (1999) there is a dearth of historical literature on sex toys or their precursors. One source that I was able to locate is a visual collection of vibrators by Good Vibrations founder Joani Blank that exists as an informal catalogue on the Good Vibrations website (Good Vibrations Website, Antique vibrator Museum, 2009). Blank is well known not only as the owner of one of the
first female-centric sex shops in the 1970s, but also as an author of guide books to buying sex toys. The transition from medical device to personal beauty device in the early part of the 20th century is evident in the examples shown in Figures 4.7 to Figures 4.13 and carries on to the 1970s shown in Figure 4.14.

The site says vibrators were sold as massagers and marketed for weight reduction and beauty aids up until the 1970s when the adult industry began producing what is now called a sex toy or sex aid. From the images in the on-line collection, the beauty theme is evident in the name of the product or the marketing or the packaging. The text accompanying the Magnetic Massager from the 1930s says, ‘The Magnetic Massage, the amazing new beauty and health sensation’, ‘For glorious health’, ‘For lovely skin’ (Figure 4.7 to Figure 4.9) and shows images of a woman using the vibrator on various parts of her body. Also circa 1930s Elizabeth Arden, the beauty and cosmetics company produced the Electric Patter as shown in Figure 4.12, and Figures 4.10 and 4.11 show the Beautysage circa 1930s and the Vibrosage circa 1944 by Beauty Appliance Corp. Figure 4.13 shows the Coronet Electric Coronet Beauty Patter circa 1940s and Figure 4.14 shows the Lady Norelco Home Beauty Salon, North American Philips Corp., circa 1970. These products show that the social camouflage of the medical device transforms it into the health and beauty device.

Another source is Athens (2005). He gives evidence that between the 1920s and 1960s, before the advent of the adult bookstore, there was a type of travelling salesmen who travelled across the United States selling, what was considered at the time, risqué product to men. He refers to these men as the Romantic Product Salesmen.

Athens (2005) details the experiences of one such salesman he remembers from his youth growing up in the south of the United States and the experiences of his father
from briefly working such a job. Athens recalls he provided a range of goods such as (p. 880),

...costume jewelry, silver-and gold-tasseled pasties, black and red garter belts, black seamed hosiery, and fishnet stockings to breathe fresheners, cheap perfume, and scented bubble bath to lubricate condoms, French ticklers, penile extensions, cock rings, Spanish flies, and vibrators.

Romantic Product Salesmen sold exclusively to men across broad demographics. The products were considered obscene and if a salesman was caught by the police they could expect a fine or a short time in jail. Being a travelling salesman made it easier to avoid such a fate. Athens (2005) states it is difficult to place exactly when the occupation started, but the salesman he based his article on were working in the 1920s. The occupation died out in the middle of the 1960s as the pornography industry grew and adult bookstores became commonplace in medium to large sized cities. Athens (2005) argues the Romantic Product Salesman was unable to compete as these stores were able to offer a greater and more risqué range of goods.

From the 1930s to the 1970s vibrators or other sexual aids existed in two very different markets—one catering to males and one catering to females. The Romantic Product Salesmen and early adult book stores sold product and devices to men as marital aids. These aids are the direct precursors of the mainstream adult industry product from the 1970s onwards. The women’s market was the health and beauty vibrators that had evolved from the Victorian medical products, with the social camouflage of their highly sexual possibilities evolving from treatments specifically for hysteria to general beauty, weight and health benefits. As the adult industry and pornography became more socially visible in the 1960s the genre of adult industry products became the standard. By the mid 1970s the product genre of sex toys was firmly embedded in the adult industry adopting its aesthetics and conventions.
Across this period (1930s-70s) changes took place in society due to the dissemination of scientific and medical knowledge about female sexuality (Goren, 2003; McLaren, 1999). These, along with the changes for women brought about by the second wave feminist movement of the 60s and 70s, led to a shift in the social and economic roles women occupied (D’Emillio, 1983; Snitow, Stansell & Thompson 1983). Through education and equality laws, women moved en mass from roles in the domestic sphere to the public sphere, which will be discussed in the next section. It is important for the research question to understand these changes in the social and economic status of women for a number of reasons. One is to question whether the sex toys produced in the later decades of the 20th century by adult industry companies have align with the changes in sexual attitudes and knowledge to female sexuality and the economic changes to female wealth. This becomes important in Chapter 7 as both the economic status of contemporary female consumers, and a shift in attitudes and practices around female sexuality from the Victorian era, I argue, allows for the development of product and brand differentiation away from adult industry providers.

**Shifts in Sexuality across the 20th century to the Sexual Revolution**

The scope of this research does not allow for a detailed description of the changes across the 20th century to sexual notions and knowledge and their intersections with scientific knowledge, technology and world events. Nonetheless, some review is necessary to compare Victorian sexual ideology with mid-to late 20th century sexual ideology and the affects, if any, on the sex toys of the adult industry. The 20th century saw significant shifts occur in western society to attitudes and behavior around notions of sexuality and socially gendered constructs (McLaren, 1999). New sexual knowledge and theories generated from medical or scientific fields, as discussed by Goren (2003), interacted with technology and commercial markets to spread new information and change the way sexuality was experienced by the individual or socio-culturally framed.
Victorian notions of the separation of spheres of influence, as discussed earlier in this chapter (Sparks, 1995; Garton, 2004), and the centrality or sanctity of the nuclear family held firm across most of the century (D’Emillio, 1983). While the separation of the spheres was challenged by second wave feminism in the 1950s, 60s and 70s, the centrality of the nuclear family has been maintained into the new millennium. As D’Emillio (1983) argues the family is still an important institution to a capitalist society as a site of consumption and the socialisation of the next generation of workers. Constructing men and women as separate gender types that need different commodities to construct identities is an important process in design and economic consumption (Sudjic, 2008). Greater numbers of women have entered education and the workforce in the later decades of the 20th century, yet their bodies as gender constructs, their homes and the gendered roles they play are still huge sites for consumption and commodification opportunities.

The 1960s and 70s became known as the period of the sexual revolution. Garton (2004) says it is unrealistic to suggest that the sexual revolution of the 60s and 70s was a critical mass of western humanity working towards the same goals of sexual freedom. He suggests there were many different groups and agendas around issues and causes of sexual liberation, socio-sexual freedoms or rights, such as feminists, gay activists, pornographers or sexual libertarians, all contributing to a sense of radical overarching socio-sexual change but with different emphasis on the political, social, individual or commercial action of each group.

As the 20th century progressed, medical knowledge in the form of new fields of sexology or psychotherapy interacted with technology in the forms of the contraceptive pill and communication technologies disseminating sexual or social information that interacted with socio-political movements around women’s rights to their bodies and economic independence. (D’Emillio, 1983; Goren, 2003; Snitow, Stansell & Thompson 1983) The defining changes of these interactions in the 20th
century were the separation of procreation from the sex act, women gaining the ability and legal right to economic independence, easier and more socially acceptable divorce meaning marriages lasted less time, single person households dramatically increased and people lived longer lives as outlined by Snitow, Stansell & Thompson (1983); sexual minorities gained a semblance of acceptance, freedom or visibility as outlined by D’Emillio (1983); and sexuality became to be seen as an individual concern as outlined by Goren (2003). Particularly in the case of women, their sexuality became their own property and not the property of their fathers or husbands. Central to all of the above changes discussed was that sex was freed from procreation through medical science and that this underlined or was at the core of greater social changes in the status and rights of women, sexual practices, behaviors and marriage in the later part of the 20th century. Snitow et al state (1983, p. 11):

Underlying many of these changes is cheap, accessible birth control, which places men and women in a historically unprecedented relationship to our bodies and to each other. Here lies the core of the ‘sexual revolution’: those changes in ideology, culture, material conditions, and technology that have weakened and finally severed the link between reproduction and sexuality.

This allows for notions of the sexual act to be recreational than procreative at the end of the 20th century.

The development of scientific fields of study around sexuality, such as psychotherapy, sexology and sexual therapy, released new information into the public domain through studies into sexual behavior (Goren, 2003; McLaren, 1999). The dissemination of sexual theories by Freud and his followers along-side other researchers such as Havelock Ellis and Krafft-Ebing in the late 19th century or Alfred Kinsey and Masters and Johnson mid 20th century (to name a few of the researchers
working within the areas of sexuality and psychology), saw a greater publicising and fascination with sexuality and sexual diversity as outlined by McLaren (1999).

McLaren states that sexual behavioral studies by Kinsey—*Sexual behaviour of the male* in 1948 and *Sexual behaviour of the female* in 1953, showed the variety of sexual behavior and the lack of what could be considered normal. Masters and Johnson’s *Human sexual response* in 1966 focused on female sexual physiology and changes to the body and mind during sex and orgasm that led to the debunking of ideas of the normality of mutual orgasm through penetration alone and the importance of the clitoris to female orgasm. According to McLaren (1999) each study contributed to a slow debunking of the androcentric model of mutual coitus, that masturbation was bad or the ideal of male or female sexual normalcy. These new theories created challenges to social constructions of gender and sexual roles that were taken up by sections of the second wave feminist movement in the 1960s and 70s (Chalker, 2000).

By the early 1980s the political and social liberalism of the 60s and 70s had been replaced with a conservative backlash against the many outcomes of the sexual revolution such as gay rights, feminism or multiculturalism (Klein, 2006; McLaren, 1999). It begins with the elections of conservative politicians Margaret Thatcher in 1979, and Ronald Reagan in 1980, and results in the New Right or Religious Right particularly in the United States, increasing their power to influence policy or legislation through supporting the presidency of Ronald Reagan. In particular they focused on issues they perceived to support the strengthening of what were represented as family values and tightening the social control of sexuality. They fought issues over the legality of abortion, sex education in schools, access to pornography, AIDS and HIV funding, the rights of sexual minorities and sexual practices in the privacy of one’s own home (Klein, 2006).
As discussed above the era between the 1960s and the 1990s swings from the liberalisation of sexuality and social attitudes to sexual practice in the 60s and 70s (Garton, 2004; McLaren, 1999) to the conservative backlash of the 80s and 90s (Klein, 2006, Rubin, 1984). The modern adult industry and sex toy industry was formed in the early part of this period as social and legal views on pornography became more relaxed and technological advances such as film and video increased the ability for consumers to access pornography—which had a higher and more publicly accepted profile than ever before in the 1970s (Nathan, 2007; Schlosser, 2003; Williams, 1989; Williams, 2004a). In the early part of this period the adult industry benefited from the relaxation of social attitudes and laws around sexuality.

As the 1980s started, the adult industry became a prominent target of the Religious Right and part of ongoing cultural or morality wars in the United States and Great Britain (Klein, 2006; Weeks, 1989). The religious right was able to attack the adult industry for eroding family values and undermining the foundations of a civil society. The industry also came to be questioned by sections of the feminist movement led by vocal anti-pornographers who argued that all pornography is violence towards women and symptomatic of a misogynous society, as outlined by Comella (2008b). The industry was caught in a pincer movement from hardline feminists on one side and the religious right and the Attorney General’s Department of Reagan’s government on the other.

These campaigns ensured that the adult industry was seen again as being socially unacceptable and taboo. The affect of this conservative backlash ensured that the industry remained a closed-off mono culture for decades. The result was a small number of adult industry companies that grew large and dominant producing endless cycles of self-referential product, in a vacuum of competition, innovation and product standards based around male-centric ideals of sexuality, as discussed in greater detail in Chapter 2. However, in one significant area sex toy commodification was affected
by 2nd wave feminism—the creation of the first female run sex stores in the late 1970s.

To discuss the establishment of the first female-run sex stores in the 1970s and early 1980s is significant for a number of reasons. Firstly because the establishment of these stores is directly related to elements of the second wave feminist movement—particularly, as will be discussed below, those elements related to advancing a more realistic understanding of female sexuality in line with the medical and scientific knowledge disseminated in the later half of the 20th century, as discussed above.

These stores are significant secondly because they create the proto-type of the female-centric sex store, created by female entrepreneurs from outside the adult industry. While this model remains small in number in the later decades of the 20th century, the model becomes important to discuss in relation to dynamic changes that take place within sex toy commodification in the first decade of the 21st century that is the focus of the design research project as outlined in Chapters 5 and 6. Those changes relate to creating product, distribution and retail environments that are female-centric and targeted to a contemporary female consumer.

The female run sex stores discussed below are the modest beginnings of a larger change towards female-centric products and services that is central, I argue to the research question, in that a contemporary understanding of the female consumer will result in commercially and socially acceptable sex toy commodification.

**Affects of the Sexual Revolution on the Adult Industry: Sexual Liberation, Feminism and the Establishment of the First Female-centric Retailers**

The socio-sexual changes of the 1960s and 70s were harnessed by sub groups of the feminist movement in the United States to create the beginnings of a niche market
within sex toy retail that created the first models of female-centric sex toy retailers (Anderson, 2006; Loe, 1999). The ‘pro-sex’ elements of second wave feminism put female sexual pleasure and knowledge front and centre to female emancipation generally (Chalker, 2000; Loe, 1999).

The feminist movement of the 1960s and 70s in the United States was a loose grouping of different ideologies, theories and priorities. For some in the women’s movement, gaining access to women’s health services, particularly around sexual health and knowledge, was a main priority (Chalker, 2000). The right to female sexual pleasure and sexual knowledge became an important ideological position. Out of this pro-sex feminist movement of the 70s, the female-centric sex shop developed as a small number of female sexual health advocates moved to developing retail environments specifically for female clientele. These stores would become the prototypes or exemplars for the growth of female-centric sex retail in the new millennium to be discussed in chapter 6. These American retailers—Good Vibrations, ToyBox, Babeland (formerly Toys in Babeland) and Grand Opening developed the first female orientated sex toy retail market in the 1970s and early 80s (Anderson, 2006; Loe, 1999).

Loe (1999) argues that these stores developed as a direct result of the pro-sex feminism movement of the late 1970s. She states that the pro-sex movement differed or developed from earlier versions of feminism in that the women who promoted it believed in empowerment through sexual pleasure and knowledge. This coincided with the increasing scientific and public acknowledgement of the role of the clitoris in female sexual arousal, which was bought fully into the public domain by sexual researchers in the mid 70s—disseminated into popular culture through articles in women’s magazines such as Ms. and Cosmopolitan (Juffer, 1998).
The two pioneering owners of the first female-centric sex store retail environments, Joani Blank from Good Vibrations and Janine Stone of Toy Box both developed their ideas from working in the area of female sexual health. Both ran workshops counseling pre-orgasmic women (women who could not orgasm) and both set up their shops as a way of providing women with a non-sleazy retail environment outside of the adult industry (Anderson, 2006; Loe, 1999).

Good Vibrations and Toybox provided a retail environment to women that was well-lit, non-sleazy, safe, and focused on giving their customers sex education, not just products or books. They started out not as profit-driven organizations but more physical embodiments of second wave feminist principles of empowerment through females understanding and exploring the full range of their sexuality (Anderson, 2006; Loe, 1999). This retail environment set up in the 1970s and 80s created a model for the ‘female friendly’ sex shop. As an example Loe states (1999, p. 712):

Toy Box was formed in reaction to the typical American adult store associated with ‘lower class’ men and ‘dirtiness’ whose goals were penetration-centered and offered little or no sex information. The Toy Box vision was to provide an alternative in the form of a well-lit ‘respectable enterprise’ that offered high quality toys that could not be found in other sex stores, confidentiality, and plenty of honest information. Toy Box represented a newly feminized sex world, attentive to women’s sexual, informational, and emotional needs.

As Good Vibrations became financially successful, Blank also invited other women in on internships to support them opening similar concepts in other parts of the country. One of those interns was Claire Cavanah, who went on to open Toys in Babeland in Seattle. Babeland are now one of America’s most successful female-centric sex stores. Anderson (2006) states Babeland were turning over $10 million a year in sales in 2006.
Both Stone and Blank were more interested in the ideals of their stores than the commercial realities and both became less and less interested in the day to day running of their shops as they became more successful. In the end both turned over their shops to worker-run co-operatives and eventually left altogether. Their legacy was to pioneer a new type of sex shop that put the needs of female customers first. Taormino (2004) points out in an article on the growth of these types of shops across the United States that ‘Women-owned sex positive stores’ are now not just situated in the largest of American cities but the concept has spread to a number of much smaller locations ‘like Austin, Madison, Iowa City, Northampton, Provincetown, and Halifax’ (2004, p. 54).

The initial female-centric sex stores have been influential in gradually improving the standards of sex toy product and retail for female consumers by establishing a model that catered for a female client as outlined by Anderson (2006) and Loe (1999). By providing a non-sleazy environment, an emphasis on obtaining quality product, safe product and providing realistic and appropriate product and sexual health information, they were a counter-point to the adult industry male-centric book store that catered to a particular type of male consumer. They were the first retailers to discuss issues of material safety and product standards, such as those that have been detailed in Chapter 2 around toxins in product plastics.

The female centric sex shop remained small in number globally throughout the 1980s and 90s but that has increased in the first decade of the 21st century (discussed in Chapters 6 and 7) through the widespread use of information technology. These stores were important in creating the beginnings of networks and opportunities for producers and retailers outside the networks of the adult industry and a commercially successful retail model for female consumers. In the case of my own brand, which is the focus of the thesis design project, Good Vibrations in 2006 was the first retailer to sell and promote those products in the United States. They were establishing and
expanding the luxury or high-end segment of their range and specifically promoted the products as being produced by a female designer. This exposure led to opportunities in other parts of the world in particular Europe.

While these female centric stores, developed by female entrepreneurs from outside the adult industry, were the direct result of elements of second wave feminism—the broader adult industry, I argue did not integrate the social changes and sexual knowledge around female rights and bodies, except in marginal ways. The introduction of smaller, clitoral devices in the 1990s is an example of this, but besides this example it is difficult to establish any other examples of how the industry was influenced by these changes to women’s working, domestic and sex lives. A comparison below of the adult industry products of the late 20th century and the Victorian vibrator industry, shows that the adult industry was built upon and remained stuck in the sexual ethos of the Victorian era at the end of the 20th century.

Summary

Comparing the medical products of the Victorian vibrator industry with the sex toy products of adult industry at the end of the 20th century, I argue that despite the significant changes to sexual attitudes, sexual knowledge and socio-economic status of females in the later half of the 20th century, these changes are not reflected within adult industry product or the system and networks that create the product are inappropriate for the majority of contemporary women. In Chapters 5 and 6, I will discuss the re-conceptualisation of the sex toy genre through product design that is developed with industrial design process, methods and standards, that are not only commonly used as a professional standard, but is also a method that puts the potential users’ physical and emotional needs at the centre of the design process. I argue that taking a user centred design approach, with the contemporary female consumer at the centre of this process, product and brand differentiation will occur through a contemporary understanding of female sexuality. The adult industry, I argue will
continue to find it difficult to develop appropriate products for the majority of contemporary female demographics that presently exist, because the industry is still predominately using outdated sexual ethos, reflecting a Victorian attitude to female sexuality to create those products.

From a comparison of aesthetics or construction, both product eras appear to have significant differences as can be seen in the examples of Figures 4.1 to 4.5 to the examples in Figures 3.5 to 3.14. The aesthetic or the construction techniques reflect the different technological capabilities of the manufacturing industries of mass production across those 150 years. Vibrators from both eras are attempting to provide the same function—that of a vibratory feeling against the skin. The differences are in the technology, materials and construction techniques of each period which I will discuss below and then explain that despite obvious aesthetic, technological or material differences, the products of both eras display the same socio-cultural ethos towards female sexuality.

The Victorian products are larger and significantly more robust—with a distinctly industrial aesthetic as expected of products in a pre-industrial design profession era (as shown in Figures 4.1 to 4.5). Significant proportions of the early vibrators have been fabricated using metals. The adult industry products of the late 20th century (as shown in Figures 3.5 to 3.14) are smaller and more compact devices—significantly less robust than their Victorian or early 20th century precursors—the health and beauty device (as shown in Figures 4.7 to 4.14). As plastics developed in the early 20th century, it was incorporated quickly into product design and appliances. This reduced the amount of metal and weight of each product. By contemporary standards of product design, even the early to mid 20th century devices look cumbersome and clunky. The types of materials and processes not available to the Victorians that have been used widely by the adult industry are plastic injection molding technology and
silicon molding technology. This enables the products to become smaller, lighter and more delicate and in some cases flexible and softer to touch.

The Victorian product was developed for the medical establishment as a medical device, as outlined by Maines (1999), not a recreational sexual device and the products display an industrial aesthetic of the fabrication technologies of the period (as shown in Figures 4.1 to 4.5). Even as the products developed into smaller health and beauty devices (as shown in Figures 4.7 to 4.14), for personal care and not clinical medicine, their social respectability and camouflage also relied on them keep a distinctly non-sexual appearance, even if some of the advertising or packaging of the products suggested less than wholesome use. The Interwar health and beauty devices reflected the production technologies of the period 1919 to 1939. The introduction of basic plastics into product design, mixed with metal fabrication yet still displaying a rather industrial, robust aesthetic no different from other small home appliances of the same period.

The adult industry products from the 1970s onwards were developed as blatant sexual devices, marketed as sex toys and they are known for displaying literal interpretations of sexual biology and function as discussed in detail in Chapter 3 (as shown in Figures 3.5 to 3.14). There is no social camouflage attached to these products. In this they differ from the Victorian or health and beauty devices. Nonetheless, I argue that the Victorian products, the health and beauty devices and the adult industry products of the late 20th century are all created from the same sexual ideology and notions around female sexuality.

The same phallocentric/ androcentric model of sexuality created both the Victorian medical vibrator and the late 20th century adult industry recreational sex toy. Both are constructed on the ideological position of the penis/ phallus as central to the sex act. The Victorian industry was able to masturbate female patients to orgasm clinically
because it did not involve penetration and was not considered a sexual act (Maines, 1999). The standard flag bearer of the adult industry, the plastic or rubber phallus is a representation of the same masculine socio-sexual view that the penis/phallus is central to the female sex act as outlined in Chapter 3 in a comparison with the symbols and conventions of pornography.

The Victorian era products, though medical devices, were created on the basis of socio-cultural misunderstandings of female sexual physiology. As detailed earlier in the chapter discussing Maines (1999), the Victorian vibrator industry was a result of the broader socio-cultural control of female sexuality. Victorian women were seen as de-sexualised and passive. The clitoris was ignored as a major component of female sexual functioning and masturbation was a socially unacceptable act. The medically and socially acceptable model for the sex act was the androcentric model of coitus with penetration by the penis and male-orgasm at the centre.

The flip-side to the morally upright, middle class Victorian female was the creation of the ever available, sexually veracious female character within Victorian pornography as discussed in chapter 2 (Segal, 1992). While not de-sexualised like her middle class counterpart, her role was the passive receptor of male pleasure, penetration and objectified by the male gaze. She was created for a male audience and the standard carried through from Victorian pornography into early stag films and into the characterizations of the modern adult industry (Williams, 1989). As discussed in Chapter 3, these characterizations of the female as porn star, slut or vixen are commonly used by the mainstream sex toy industry in the marketing of sex toys on websites and packaging (as shown in Figs 3.2 to 3.4 and Fig 3.13).

While the pro-sex movements of second wave feminism have put the role of the clitoris firmly back in the sexual health and medical text books (Chalker, 2000; Loe, 1999) as well as popular culture, it took until the 1990s for the adult industry to
translate this knowledge into smaller clitoral devices for women. Both video pornography and sex toys have put the idealized penis; ever huge; ever erect; at the centre of the sex act for both categories (Dines & Jenson, 1998; McKee et al., 2008; Segal, 1992, Williams, 1989). For sex toys it is a straightforward interpretation; symbolically the prevalence of the phallus in the canon of sex toys for the last 30 years is saying that women cannot find sexual pleasure without the penis, even if it is a plastic one. If a male is not participating in one’s sexual experience one needs to have a fake penis of some sort present and that individual personal sex acts for women involve a penetrative experience. It is again reflecting the Victorian notion that pleasure for women resides in the vaginal penetration. This is not to discount the penetrative experience, but as discussed in Chapter 3 on the phallus genre, vibrating phalluses have been historically designed with the vibration in the wrong part of the products to ever maximize contact with the most sensitive parts of either the clitoris or the vagina (g-spot), and badly designed for either vaginas or clitoral contact.

The adult industry aligned sex toys of the late 20th century developed at a time of blossoming sexual expressions and freedoms in western society typified by the sexual revolution of the period. For a short period in the late 1960s through the 1970s the adult industry was publicly more visible through a greater acceptance of pornography in general, at the point sections of second wave feminism were pushing increased sexual knowledge and pleasure for females. Yet it is not a product genre influenced by feminism or particularly concerned with, I argue appropriate design pertaining to female sexual physiology. Adult industry products relate in socio-cultural sexual meaning more closely to the sexual attitudes of the Victorian era than pro-sex second wave feminism or female sexual expression in the twenty first century. The significant model of change through the first female run sex stores of the 1970s and 80s was developed by female entrepreneurs from outside the adult industry.
Certainly the 20th century started with the vibrator, the precursor to the modern sex toy, being a respectable medical product and the treatment it was used for, to treat women for hysteria by massaging them to orgasm, was considered an unsexual act. As the century progressed and more became known about female sexuality through psychoanalysis and sexual therapy research, in particular the role of the clitoris, the less respectable the health and beauty vibrator became. The vibrator ended the century, as an overtly sexual device firmly embedded in the adult industry with its aesthetic of fake genitalia and female porn star packaging reinforcing its taboo status as socially and commercially unacceptable.

The sexual revolution briefly created greater visibility and respectability for the adult industry, but it became embroiled in the greater morality and censorship battles over sexuality that took place in Western politics from the 1980s onwards. These morality battles and the industry’s own dominant aesthetic of fake genitalia have contributed to its ongoing social status as taboo.

The comparison between Maines’ (1997) analysis of the Victorian vibrator industry and the late 20th century sex toy industry demonstrates the persistent notions in western society around female sexuality that despite enormous shifts in sexual knowledge and attitudes, remain firmly embedded in mainstream adult industry sex toy production. The sexual ethos that influenced the development of a vibrator industry in the Victorian era is still evident today in the modern mainstream sex toy industry. Even though females are the majority of sex toy consumers, the values and conventions of the adult industry has created a certain type of male-centric product that exhibits long standing western sexual ethos revolving around masculine ideals of female sexuality. The ever-erect penis and its centrality to the female sex act, the sexually passive female, and the misunderstandings of female sexual physiology displayed in the poorly designed ergonomics and functions of products—these are the
symbolic codes and product conventions of the adult industry which have translated into the physical product we know the industry by.

In the first three chapters of this thesis I have addressed the research question by outlining the historical, technological and socio-cultural affects on the taboo nature of sex toy production. I have explained various reasons why sex toys remain taboo due to an association with the symbols and conventions of the broader adult industry, historical pornography and its male-centric bias.

In the remaining chapters of the thesis I discuss the era of the first decade of the 21st century. I identify technological and commercial shifts in sex toy production, distribution and retail, and map these against socio-sexual changes and attitudes to female sexuality or socio-economic status as I have done for the Victorian period and the late 20th century. I show a range of shifts around attitudes to female sexuality that are enabling the development of a female-centric sex toy market from forces and influences outside of the adult industry that reflects more realistically the contemporary female consumer identified within the sexual surveys in Chapter 3.

In Chapters 5 and 6 I discuss the re-conceptualisation of the sex toy genre as product design that is developed within industrial design processes, methods and standards, that are not only commonly used as a professional standard, but as a method that puts the potential users’ physical and emotional needs at the centre of the design process. I argue that this is essential to developing a variety of female-centric sex toy products and brands that more appropriately reflect the physical and psychological needs and desires of the variety of the contemporary female demographics identified in the sex surveys of Chapter 3. The research design project in Chapter 5 is an example of re-conceptualising the design and branding of a sex toy for a contemporary female target market that enables the product to be shown and commercialized outside adult industry networks.
Figure 4.1. George Taylor’s steam powered ‘Manipulator’, circa 1860’s

This image does not have copyright permission

Figure 4.1. Source from Maines, R. (1999). The Technology of Orgasm: hysteria, the vibrator and women’s sexual satisfaction, Baltimore: John Hopkins University Press, p.15
Figure 4.2. Source from Maines, R. (1999). The Technology of Orgasm: hysteria, the vibrator and women’s sexual satisfaction, Baltimore: John Hopkins University Press, p.97

This image does not have copyright permission
Figure 4.3. Source from Maines, R. (1999). The Technology of Orgasm: hysteria, the vibrator and women’s sexual satisfaction, Baltimore: John Hopkins University Press, p.14

Figure 4.3. Butler’s Electro-massage machine, 1888
Figure 4.4. Chattanooga Vibrator, 1900

This image does not have copyright permission

Figure 4.4. Source from Maines, R. (1999). The Technology of Orgasm: hysteria, the vibrator and women’s sexual satisfaction, Baltimore: John Hopkins University Press, p.16
Figure 4.5. Hanging-type of Carpenter vibrator, 1904

This image does not have copyright permission

Figure 4.5. Source from Maines, R. (1999). The Technology of Orgasm: hysteria, the vibrator and women’s sexual satisfaction, Baltimore: John Hopkins University Press, p.17
Figure 4.6. Clinic for treatment of hysteria, New York, 1904

This image does not have copyright permission

Figure 4.6. Source from Maines, R. (1999). The Technology of Orgasm: hysteria, the vibrator and women's sexual satisfaction, Baltimore: John Hopkins University Press, p.19
**Figure 4.7.** Example of Interwar Vibrator—Health and Beauty device.


**Figure 4.8.** Example of Interwar Vibrator—Health and Beauty device.


**Figure 4.9.** Example of Interwar Vibrator—Health and Beauty device.

Figure 4.10. Example of Interwar Vibrator—Health and Beauty device.


Figure 4.11. Example of Interwar Vibrator—Health and Beauty device.

Figure 4.12. Example of Interwar Vibrator—Health and Beauty device


Figure 4.13. Example of Interwar Vibrator—Health and Beauty device

Figure 4.14. Example of 1970s—Health and Beauty device.
Chapter 5

The Relevance of Industrial Design Methods and Processes in the Production of Sex Toys as exemplified in the Thesis Design Project Outcomes of Goldfrau

Chapters 2, 3 and 4 of this thesis have outlined a case that the modern sex toy industry having developed from the adult industry is focused upon the traditional male-centric audience for pornography with its attendant Victorian sexual values around female sexuality, not an understanding of the needs of a broad range of contemporary female demographics and psychographics. In this chapter, through the research design project I provide a solution or example of how sex toys may move from a socially and commercially taboo activity to a mainstream one, moving out of the sole confines of adult industry networks. This is done by using the user-centric design process of industrial design, in this particular case focusing on a contemporary female psychographic as the end consumer and user.

I explain why industrial design process and methods are central to developing a solution which addresses the thesis question of how sex toy production may move from taboo to mainstream. I then outline the design research outcomes—the creation of the Goldfrau brand through the development of product design artifacts and product values using the user-centric process of industrial design method that translate into the branding outcomes detailed in this chapter.

As stated in the introduction on design research methods, the use of the design process and the resultant artifacts is both the creation of new knowledge and a reaction to the literature—the designed artifacts are a critical response to the evidence the literature presents. While I would like to argue that the design response is a wholly rational reaction to the literature, elements of this chapter will show my bias towards developing products for a psychographic similar to myself. This chapter also
discusses the training and ethos of the Industrial Design profession and it is part of my argument that this also influences the designed outcomes; not just in terms of material safety or manufacturing quality but a particular type of aesthetic that is heavily influenced by 20th century modernism. However the biggest response to the literature and product reviews, and its translation into the design project was the perceived need to move away from the symbols and conventions of the adult industry discussed in the previous chapters. This chapter outlines the various personal and professional knowledge, behaviour and beliefs that develop the design outcomes for this thesis.

**Industrial Design Process and why it is Important to Thesis Outcomes**

I have argued throughout the thesis that the majority of the sex toy industry is not manufacturing to common industrial standards because of the taboo nature of the products, a lack of competition within the industry and a lack of government regulation in regard to safe material standards and manufacturing processes. The marketing of these products to a range of contemporary women is narrow with the male-centric focus of pornography symbols and conventions that is counterproductive to the industry becoming more widely accepted in mainstream commerce—a wider variety of female users have not being designed for or marketed to.

One way the sex toy industry could move from a taboo to mainstream commercial activity would be to adopt industrial design processes and methods used in other product development. This is because industrial design processes and methods allow the designer or manufacturing company to consider a range of options that should put the needs of the potential user, both physical and psychologically at the centre of design considerations (DIA Website, Industrial Design, 2011). Best (2010) states ‘…designers take into account the unique needs of the users for whom they are
designing, as well as the production processes necessary to get the design to market’ (2010, p. 46). This is within well-established frameworks of product safety and manufacturing standards. Core tenants of industrial design processes and training involve the understanding of manufacturing quality, the centrality of the emotional, psychological and physical needs of potential user to the outcomes, and the ability to innovate existing materials and processes into a variety of new configurations as outlined in examples presented by Valtonen (2007). The process is also discussed in examples by Kelly & Littman (2000) outlining the innovation practices of IDEO.

This industrial design process, which I have used for the research design project puts a contemporary female consumer group at the core of design considerations. This is central to developing design, branding and business solutions which move away from adult industry symbols and conventions by developing products that focus on a contemporary understanding of female sexuality not the long standing historical symbols of the adult industry developed from Victorian ideals of female sexuality.

Industrial design is a specific profession of design that mediates between users and technology as discussed in the following quotes from international Industrial Design societies. The Industrial Design Society of America, one of the oldest and key industry bodies worldwide, states on its website (IDSA Website, What is Industrial Design? 2011):

Industrial design (ID) is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer....The industrial designer's unique contribution places emphasis on those aspects of the product or system that relate most directly to human characteristics, needs and interests. This contribution requires specialized understanding of visual, tactile, safety and convenience criteria,
with concern for the user. Education and experience in anticipating psychological, physiological and sociological factors that influence and are perceived by the user are essential industrial design resources.

For the purpose of this research I draw on key themes in this definition that the industrial designer’s role in both understanding the manufacturing, technical and physical properties of a product, and the role played in understanding the emotional and psychological aspects of a product in its interaction with the user leads to appropriate and safe outcomes. The Design Institute of Australia states on its website (DIA Website, What is a designer? 2011).

A designer is a business professional who develops solutions to commercial needs that require the balancing of technical, commercial, human and aesthetic requirements.

More specifically in relation to industrial design practice, it states (DIA Website, Industrial Design, 2011):

Industrial designers develop and prepare products for manufacture. They are particularly concerned with those aspects of products that relate to human usage and behaviour, and product appeal ... They explore solutions to meet marketing, manufacturing and financial requirements and arrive at the optimum design of a product. They consider both functional and aesthetic aspects and pay particular attention to ergonomics, those factors that relate to ease of use and human behaviour.

Again, it is important to note that the role of the industrial designer is not just as a technician of manufacturing processes, materials and industrial standards but also as a product developer that understands the physical and emotional needs of the user. This is interpreted into a product’s qualities, whether aesthetic or functional.
The industrial designer is a key figure in the product development process that balances the concerns of management, marketing, the engineers, manufacturers and the user and integrates these requirements into the product (Valtonen, 2007). What sets the industrial designer apart is their responsibility to understand and allow for the needs—both physical and psychological, of the user and determine how those needs get integrated into the visual, tactile and physical properties of the product (DIA Website, Industrial Design, 2011).

Poggenpohl (2009) outlines the aspects of design sub disciplines and describes product designers as being responsible for 14 key categories—Aesthetics, Business Investment, Distribution, Energy, Engineering, Function, Human Factors, Interaction, Material Science, Meaning, Patterns of Use, Shelter and Style (2009, p. 11). These 14 categories can be divided into 3 main areas of Human Factors, Business/Commercialization, and Manufacturing/Engineering. Of the Human Factors area half of the initial key categories reside within this main group— that of Aesthetics, Function, Human Factors, Interaction, Meaning, Patterns of Use and Style. This shows designing appropriately for the potential target market is a core competency of industrial design process and method.

Valtonen (2007) in her case study on Nokia in the 1980s and 90s shows the development of user-centred approaches within industrial design practice and teaching. She pin-points these beginnings to the developments of ergonomics in the 1970s in Scandinavia. As Valtonen (2007) suggests the integration of a user-focused design approach has become increasingly important to the field in recent decades as technology developed through the ICT industry has resulted in complex electronic products needing user-friendly interfaces. She states that, ‘The broader view of usability and end-user understanding has today become the starting point for all successful industrial design’ (2007, p. 294).
As Valtonen (2007) discusses, putting the user at the centre of the design process is now standard practice in industrial design education and industry. In those decades since the 70s information collected for the design process has moved from gathering secondary research (although the testing of prototypes with users could be considered a primary source of data) to the use of methods from the social sciences such as observation, ethnography and interviewing to inform what should be designed for whom (Best, 2010; Visocky & O’Grady, 2006). A notable example of this is the work done by IDEO and Stanford University to develop a range of methods cards (IDEO, 2002) that give designers an overview of what techniques are available to them. Further examples can be found in a range of texts on design research methods such as Laurel (2003), Visocky & O’Grady (2006), Cassim, Clarkson, Coleman & Dong (2007), Krippendorff (2006), Jordon (2000), Martin & Hanington (2012) and Michel (2007).

Another aspect that is important to this research besides a user-centred design approach is the ability of industrial design practice to innovate new market solutions based on an assessment of gaps or changes within markets. Valtonen (2007) outlines the changes to the field of industrial design since World War II has moved the professional practice of industrial designers in industry into strategic business and management roles to enable strategic industry innovation. Valtonen (2007) maps the changes as that of moving from an operative role to a strategic role in industry particularly as the ICT industries developed from the 1980s onwards. By operative, she means the practice-based roles industrial designers are initially trained for—the ability actually to be able to design and prototype appropriate solutions, to more strategic roles in industry as design strategists business managers and business innovators.

In Laurel’s (2003) text on Design Research, Rhea (2003) describes product development as some sort of ‘Fuzzy Front End’, a mysterious process to management
how designers develop appropriate solutions from a multitude of sources of information. While it may seem mysterious to those who are untrained it is process of specific practical and thinking techniques that are the basis of professional practice. Rhea (2003) divides them into the categories of Discovery Phase, Forecast Phase, Identifying Opportunities, Prioritise the Opportunities, Modeling the Benefits, Generating Product Concepts, Creating Models, Refining Concepts, and Creating Prototypes (2003, p. 153). Each phase is a combination of critical thinking skills, technical design skills, and reflective practice—the ability to reflect on what has been done in combination with needing to synthesis various types of information to take a project forward into a product, interface or service systems solution (Best, 2010; Rhea, 2003).

This is, I argue, a research-led systems thinking approach to industrial design. That is, being aware that every product or problem is a part of a range of socio-cultural, economic and technical systems. The designer’s role is deciding what information is important and what series of methods needed for that particular problem based on what primary and secondary information gathered. Innovation lies in perceiving scenarios others have not grasped yet and Rhea (2003) calls this ‘The Innovation Process’ (2003, p. 153). Valtonen (2007) documents how these range of thinking skills have led to a change and broadening in the roles of industrial designers in industry as they have gone from practitioners, to design and management strategists, to brand builders and industry innovation drivers. This is the change she documents from operative (practice based skills) to strategic (industry innovation and management) skills (Valtonen, 2007, p. 306).

What I have discussed, drawing on Valtonen (2007) and Rhea (2003), is that the practices of the industrial design profession encompass a range of doing and thinking skills. What is important to this research is the use of a user-centred design approach and systems and strategic thinking which allows the designer to focus beyond just the
physical properties of the product. This is to perceive and understand the potential changes to markets from shifting socio-cultural, economic, political or technological influences (Best, 2010). The ability for industrial design processes and methods to innovate into a market is now a key ethos and skill of the profession (Kelly & Littman, 2000; Valtonen 2007).

Therefore, I argue that if contemporary industrial design methods and processes are applied to the product genre of sex toys a shift will take place in the type of product developed. Contemporary industrial design process and methods will not only put an understanding of a contemporary female consumer (of which ever demographic the designer or client chooses) at the centre of the design process, but the designer(s) will attempt to identify gaps within the market and produce product and brand differentiation away from market norms—in this case the historical symbols and conventions of the adult industry.

This is central to answering the research question of how the sex toy industry may go from a taboo commercial activity to a socially and commercially mainstream one. In Chapters 2, 3 and 4 I have outlined that adult industry sex toy producers are focused on historical symbols and conventions aligned with pornography and its male-centric target market. User-centred industrial design process for developing products is a method that will put the contemporary female consumer at the centre of design considerations. I argue the process will result in a move away from literal interpretations of genitalia and novelty themes to a more serious and broader exploration of product design possibilities in light of designers considering the social, economic and technological changes to women’s lives since the 1970s. They will attempt to not only match contemporary assessments of female sexuality with product design but look for innovation with the sex toy market.
The following section is the discussion of the research design project. It is one example or solution to the problems and gap identified in Chapters 2, 3 and 4. Chapter 6 furthers this argument of industrial design process and methods providing new solutions to the problems identified in this research by documenting the development of a new generation of sex toy producers working within the same industrial design method as the Goldfrau project. The research project can now be seen as part of a new commercial trend within sex toy production as designers and entrepreneurs from outside the adult industry enter the market. Chapter 7 then addresses this trend in light of the socio-cultural, economic and technological forces that have enabled this shift in the market.

**Research Design Project: the Goldfrau Brand**

In describing and documenting how industrial design processes, methods and standards can create a shift within sex toy production in the first decade of the 21st century, I use the documentation of the research design project, the development and implementation of the Goldfrau brand. I argue in this case that there are four main considerations or criteria that are an outcome of using an industrial design process to develop sex toys in regard to creating products and services that begin to benchmark with the standards of other product genres and are aimed at contemporary female demographics and psychographics.

They are:

- The development of aesthetics involving distinctly non-pornographic styling
- Principles of quality manufacturing and material standards
- Transparent and detailed product disclosure
• A design process that puts the target consumer group, whether female, male or couples, at the centre of the conceptual design process

I argue that the first three points are a result of the last point, that is by taking a user-centred approach and developing product for a contemporary female audience with an understanding of contemporary female sexuality producers will develop brands, products and services that encompass the first three points.

This is central to providing a solution to the research question of how the industry will move from a taboo to mainstream commercial activity. This also addresses the sub question of what industrial design has to do with this phenomenon. I argue and will provide an example of in the following design project—the creation of the Goldfrau brand—that the user-centred industrial design process aimed at contemporary female consumers can develop product and brand identity differentiation away from the historical symbols and conventions of the adult industry that entrench a perception of taboo.

In this section I describe design solution of the research which revolves around the launch of the sex toy brand Goldfrau in July, 2006. I will describe the design considerations used to create the artifacts and brand in relation to the above discussion on industrial design processes, a range of outcomes that involve either artifacts or events, as well as a discussion of the innovativeness of the brand in the context of the sex toy industry at the time of the product launch.

This section of the thesis is written as a journey—my personal experience as a designer. In particular it is about my design of a sex toy and its attendant brand and company identity. In addition, I cover the launch of that brand identity and the subsequent interaction of the products and brand with the global market. I take this approach so that the reader is able to understand how the design of the sex toys
informed the subsequent research that is the subject of this thesis by providing a practical and tangible outcome.

In this section I will discuss how the product design values of Goldfrau artifacts reflect the company ethos through branding that is driven by industrial design process and methods. I will also discuss a range of outcomes from the creation of the brand and interaction with the market and how they reflect the thesis argument that industrial design process and methods will produce product differentiation into the sex toy industry that is distinct from adult industry products and branding.

**Target Market Considerations**

It is important at this point to address the issue of my own personal bias and beliefs in designing the artifacts that become the outcomes of the thesis. I acknowledge that my own demographic and psychographic position influences how I define the target market which ultimately translates into the values of the artifacts. Thus, in this section I write about my own demographic and psychographic and acknowledge that the artifact is a product that enshrines my beliefs. As I have previously stated, it is not usual for a designer to design for themselves yet I argue I am reflective of a niche market opportunity and the ability to use myself and my social group as a reference point for design decisions was helpful and legitimate. It is a documented method that can be used where possible (IDEO, 2002).

It is also important at this point to address issues of class or race bias. These design outcomes are not intended to be universally accepted by all demographics and psychographics of women, even in the west let alone other distinct cultures and ethnicities. The description of the target market shows transparently where I wish to situate the brand for commercial purposes and other designers from diverse backgrounds are open to creating other niche brands for a range of different demographics or psychographic. This includes future possibilities of potential users
with physical issues or aging issues. However it was outside the scope of this thesis to consider a more diverse range of target markets.

Key to my industrial design process was to put the potential user group at the core of design considerations—the process starts with a target market. To increase the female-centricness of the design processes and product outcomes, both the emotional and physical nature of contemporary female consumers were to be considered realistically. Understanding the female body while attempting to take into account the broad range of body types that exist is one thing; understanding the female consumer emotionally or psychologically is another. This is also taking into consideration that a brand and product will address a consumer in not just the use phase where interaction is physically intimate but in other phases such as when the potential consumer is shopping for the product. The problem is of how to get a consumer to trust and buy a brand they have never had before, in a type of product that has never existed, in a company that has very little history. For the target market I decided this was addressed through the first three points of the above list. If, as a designer attempting to develop a high quality sex toy brand, the company needs to develop aesthetic differentiation away from adult industry product, and be transparent about materials, manufacturing and guarantee of safety and quality.

In this case I am both the designer, the client and a potential consumer and I always perceive the project from three points of view that overlap. The value of being a consumer is knowledge of the products available in the market place. In a sense it is this initial view which started this project. The consumer in me perceived a gap in the market place for a higher quality range of products. That consumer reacted against the broad use of adult industry symbols and conventions within product aesthetics and packaging of mainstream companies that repeatedly used symbols such as the literal penis or the pornography star. My professional knowledge of markets suggested it was unusual for a product category to be so repetitive and narrow as my
knowledge of product categories showed that most other product genres have a broad range of price points, aesthetics and quality levels consumers can engage with. I started to investigate why the industry was taboo that has subsequently been written up in Chapters 2, 3 and 4 but initially focused on the problems of symbolism of adult industry product outcomes. The contemporary female consumer in me wondered why sex toys were still taboo as my intimate and tacit understanding of female sexuality in my own socio-cultural group was relaxed and open about sexual issues. So I used myself and my social group to create an initial persona to represent a potential target market for my conceptual design process (J. Glover, personal communication, July 2004):

I am Gen X female that lives in a multi-cultural metropolitan mid-sized city. I am a professional that earns good money and I don’t have kids so I have more than some of my friends to spend—however I find most of my girlfriends will splurge something on themselves every once in a while. I’m time-poor because I work too much, I’m a conscientious shopper when I get around to it, I like to shop less for better stuff. It took me a while but I’m quite happy to do on-line shopping. In fact it’s really convenient. I have broad range of friends in different stages of their lives in different relationships…falling in love, out of love or trying to keep a long term marriage and kids working…when we get together we laugh ourselves silly about dates, sex, sexuality, ex-partners etc…amongst all the usual topics of house prices, work, politics and the economy. Most of my friends are easy going and open about their sexuality and sexual experiences. When my friends found out I was doing a project at university on sex toys everybody wants to know where the good products are?...I tell them it’s hard to find and I think… there seems to be a demand for these types of things.
My observations as both a designer and consumer were that females of a broad range of demographics were sophisticated and demanding consumers, increasingly surrounding themselves with high quality brands that reflected their lifestyles—this is discussed further in Chapters 6 and 7 and the concept of brand culture when researched further through the literature turns out to be a significant influence on the development of sex toys away from adult industry norms (Gobe, 2001; Hewson & Pearce, 2009; Hewson & Pearce, 2011; Julier, 2008; Moor, 2007). Since the 1970s western women had increased their own financial positions through education and greater work place participation (Miley & Mack, 2009). While feminism and post-feminism became to be contested and confused positions, there seemed to be a celebration of women’s changed socio-economic status through consumption that was reflected and amplified by programs such as *Sex and the City* (Levy, 2005; McRobbie, 2005). The consumer, designer and client in me wondered where the products were for *Sex and the City* type consumers. This is not to agree or disagree with the range of feminist ideological positions that a program like *Sex in the City* raises, which will be discussed in Chapter 7; it is rather an observation that the success of a program like *Sex and the City* was based on a broad range of female demographics that had high discretionary spending power or were aspirational consumers (Silverstein & Sayre, 2009).

Rarely in an industrial design project does one get to design for one’s own demographic or psychographic. One is taught to design for other demographics and designing products for oneself can be problematic—you may be a very small niche of one. Nevertheless, in developing a sense of the scope of my potential target market, I used myself and my own group of female friends and acquaintances as a reference or starting point. I did not sit down and develop mood boards or personas at length to discuss and direct the target market focus. As the client I could have these conversations quickly with myself. I used a small group of friends and acquaintances
throughout the development and prototyping phases to get direct feedback about aesthetics and function.

I tested prototypes on myself and cross referenced experiences with other volunteers’ comments. As discussed in IDEOs (2002) methods cards on User Centred Design methods, self-testing prototypes is a valid and well-used method of gaining information about the qualities of the prototype. I discuss this as even though the product itself is not under examination, I want to document that I followed a user-centred design approach because it is key to the eventual outcomes of the project which are under examination. It is also a central argument that taking a realistic and contemporary understanding of female sexuality will develop production differentiation from adult industry products and that a user-centred approach will put this understanding at the core of design considerations.

Ultimately, the key terms of reference I used were:

- Females, 25-55 years of age, western world (this is a large age group—however sexual exploration takes place at different times in women’s lives).
- Married, single or other.
- Sexuality did not matter—straight, bisexual or gay—just a positive attitude to sexual practice or exploration.
- Secondary, Tertiary or post graduate education.
- Professional or managerial class (that is tending towards higher incomes and greater discretionary spending).
- Design literate or Design savvy or aspirational consumers.
• High reflective consumption behaviour (that is buying products based on reflecting consumers lifestyle).

The above points are broad and vague for a reason. While using myself as a starting point for a target market, I wanted to remain open minded about who might actually consume these products—but focused just enough to position them within the market place. Age is not necessarily such a defining attribute as attitudes to sexual practice change across people’s lives.

My early investigations showed a gap in the market at the high quality end. I did not want to compete with mainstream adult industry products on a high-volume low-profit margin basis and the client and designer in me agreed to that developing high quality, low volume products fitted with the above potential target market points. There was potential for a high quality product, but risk that the market had made cheap product for so long that consumers were not used to higher costing sex toys. The above points also reflect the analysis of the sexual surveys in Chapter 3 which show sex toy consumption more likely as income and education levels increase.

**The Importance of the Reflective Consumer**

While the product needs to have certain functional aspects to satisfy the user during the use phase, the aesthetic of the product and branding is to satisfy and attract the consumer during the purchase phase. There is also the consideration of how the consumer feels the product reflects or relates to their identity and lifestyle—what Norman (2004) calls the Reflective stage.

A key concept or design consideration was pleasure and how the consumer would find the interaction pleasurable across these different stages. In generating an understanding of what makes a product pleasurable to interact with across different stages or states, Norman (2004) tells us that a person will find a product pleasurable
and enjoyable if it engages their brain and their emotions on what he calls the Visceral, Behavioural and Reflective levels. Using these three terms he describes the conscious and subconscious ways the brain reacts and analyses information when interacting with a product.

Norman (2004, p. 38) describes Visceral as, ‘the automatic, prewired layer’ (2004, p. 38) that he states reacts quickly and automatically to situations both dangerous and pleasurable; it is very much about our immediate senses and engaged in the earliest interactions with a product. Norman argues we feel we like or dislike a product based on things like colour, shape and form, texture, smell or sound. Behavioural is ‘the part that contains the brain processes that control everyday behavior’ (2004, p. 38) that works in a mostly subconscious way and reacts to the usability or function of a product. It is engaged Norman (2004) says in the use phase. However, Reflective is ‘the contemplative part of the brain’ (2004, p. 38) that has the ability to interpret and reflect that which relates to our own sense of self and our relationship to our society, culture and where we and the product interact with that.

Norman’s (2004) concept of Reflective behaviour underlines that key design considerations became not just about the function or usability of the product, but about how the potential consumer thinks the product reflects their social status, identity or lifestyle. This I argue is the biggest failing with adult industry sex toys in a misunderstanding of the Reflective behaviour of contemporary female consumers. That is while potentially functionally usable or satisfying; the symbolism of the literal penis, novelty dolphin or pornography star packaging does not reflect the reality of female consumers experiencing decades of brand culture embedded in products and services (Hewson & Pearce, 2011). This will be discussed in detail in Chapter 7, but briefly just to state, that trends in technology, product design and branding since the 1999s, suggest to the designer attempting a contemporary understanding of the female consumer—that how that consumer feels a product, service or brand reflects
their identity and lifestyle is as important as function, usability or price (Best, 2010; Neumeier, 2003). In the Hewson & Pearce (2011) survey about sex toy consumption respondents were asked what companies they would like to produce their sex toys. Answers such as Apple and Prada suggest that the female respondents of Hewson & Pearce (2011) survey would like a sex toy to match their phone or handbag.

Therefore, the main points of the design brief for the product, packaging and brand material were a set of artifacts that were sensual and erotic, but reflective of a consumer that Kornberger (2010) and Hewson & Pearce (2011) describes as highly immersed in branded culture. In the design of these artifacts I prioritised design considerations that:

- Embody strong ‘reflective’ emotional values – would be considered ‘beautiful’.
- The products were ‘high’ quality in terms of manufacturing and materiality and these product values would be evident in brand identity.
- While aesthetic values extremely important – a holistic approach is taken to integrating ergonomic or functional considerations.
- The branding graphics were to be ‘sexy’— suggestive, explicit, cheeky and humorous.

The above list reflects my goal in a simple way to convey the quality of the product through the brand communications. As discussed above, in early investigation and conceptual design stages I identified that there existed a potential group of female consumers that would be affected by the reflective attributes of product design. That is, consumers who would react strongly and favourably to branding and marketing that differentiates itself from adult industry symbols and conventions.
The products themselves would have to embody strong values of quality, and this would need to be evident holistically across product design, product branding and communications material. Norman’s (2004) Behavioural aspects were equally important—that of the user enjoying the product and wanting to use it regularly and it becoming part of their lives in a positive way. Yet at the same time, to get the consumers’ attention and make them investigate the potential of the product, the brand identity must communicate values that address their lifestyles—this was an important design consideration. The next section will outline the product design values and then how these translated into brand values.

**Project Brief: Product Design and Product Values**

The Goldfrau products and brand are an example of how an industrial design process will result in products that balance the considerations of ergonomics, quality, safety, environmental and product disclosure standards. These considerations centre on the potential users’ ergonomic and emotional needs and desires. As discussed earlier in the chapter, drawing on Valtonen (2008), putting the potential consumer at the centre of the investigative and conceptual design phase is core practice of the industrial designer. All other consideration need to be balanced against the consumer’s needs and desires.

As discussed, the overarching purpose of the design project was to create a product and brand that was more female-centric or appealed to a different group of female consumers than those attracted to traditional adult industry sex toys. There was an overwhelming sense from initial investigations into the sex toy industry that the majority of products, packaging and branding projected the masculine cultural values of the adult industry. These artifacts could not be completely ruled out in pleasing women as they had sold in their millions, but, there was a narrow range of product types which projected similar values (which has been investigated in some depth and discussed in the first half of the thesis).
There was a lack of variety, and a lack of a high-quality or luxury end to the market. I perceived a potential gap in the market for a different type of product that was informed by a contemporary understanding of female sexuality and not the understandings displayed by the products and services of the adult industry. As discussed above, I perceived a miss-match between my perceptions of the contemporary females of my target group, a society in a post-feminist, post *Sex and the City* world (that will be discussed in Chapter 7) and the values displayed by the adult industry product and packaging.

My initial design hunch as an industrial designer and consumer of sex toys was that the literal penis was an indication of a narrow understanding of female sexual psychology, a lack of application of research into female sexual physiology and sex toy design, a lack of imagination on the part of sex toy manufacturers, and a lack of competition in the adult industry from design and production companies outside of its networks. While a dildo or a vibrator as a literal interpretation of a penis can work successfully in a number of materials, I questioned why it was so prevalent as a product type and whether the market ready for a completely different interpretation. The market success of Goldfrau products and other examples documented in Chapter 6 has since shown a sex toy design for female consumers does not need to resemble a penis literally for it to be a functionally or commercially successful product.

Another purpose of the design project was to create sex toy artifacts and supporting brand material that was accepted within non-taboo media and retail environments. This was not entirely to avoid adult industry networks. Rather, it was to allow the products to exist commercially outside the adult industry as well as an alternative product within the adult industry that was different from existing products. A further aim was to promote sex toy design and products as an acceptable genre of product design within the industrial design field to encourage greater participation by designers and companies from outside the adult industry.
The product form developed that can be seen in Figures 5.2 to 5.4 shows an uncluttered form demonstrating simplicity and balance that has significance to both function and aesthetic. In relation to the specific ergonomic attributes relating to the form, the product can be used in both directions either inserting the shaft or the ball to give different bodily sensations. What is more, the ball acts as a handle if the product is used for one of the main functions it was designed for—vaginal penetration. One of the main problems I perceived with adult industry dildos or vibrating dildos is the lack of some form of handle. Because the products are replicated on literal penises they tend to end at the bottom of the shaft. This gives the user no way of gripping the product safely or easily when inserted. If the penetrative act is accompanied by lubrication and vigorous motions it further adds to the difficulties with handling. The Goldfrau product shaft is straight and not bent to avoid the user(s) worrying about the product turning inside the vagina while in use. It has not been specifically developed to reach the g-spot, although by inserting the ball end this may be possible. I have had feedback from customers that this is the case for some users.

The simplicity of the form also fulfils an aesthetic and reflective role. It gives the product a classic and timeless style through the merging of simple forms—a strong aesthetic signature. This anchors the use of decoration or ornamentation. The product forms are solid, refined but not busy or complicated, yet the product styling can change through the overlying of graphics. This is one of the advantages of the use of ceramic. The form, as a series of interconnected curving surfaces, also gives strength to the product. A review of Figures 5.2 to 5.4 shows how the specific processes of ceramic production allows for a change in ornamentation that changes the look of the product.

The simplicity of the form allows for more complex ornamentation. Ornamentation allows for graphical variations that expand consumer choice. The use of ceramics, while having distinct and advantageous functional attributes, also enables a use of
decoration or ornamentation not available with other materials. Both the materiality of the product and its decoration differentiate the product in the market place. This gives the ability to play with the emotional or reflective design aspects of the product discussed above.

While the use of ceramic as a product material allows for a level of decoration or ornamentation that other materials cannot achieve ceramics also has socio-cultural connotations of exoticness and quality (Emerson, Chen & Gardner Gates, 2000). The field has a long history of international trade and production, in the Chinese Yuan, Ming and most of the Qing Dynasty, Chinese ceramic production represented the most advanced technology of the day. Ceramics from these periods—11th century through to early 20th century—still represents a high water-mark of ceramic production and pieces have become priceless museum and collector artifacts (Emerson, Chen & Gardner Gates, 2000). By the early 18th century in Europe ceramic production evolved to include porcelain and high quality manufacturing established across Europe which challenged the Chinese hold on global trade and production (Emerson, Chen & Gardner Gates, 2000). In a contemporary example of the socio-cultural meanings of exoticness and quality that the use of porcelain symbolically projects—Bugatti in its 2011 L’Or Blanc Luxury Sports car engaged the services of German porcelain manufacturer KPM to provide a range of components for the car (King, 2011). Not essential functional parts such as a ceramic engine but status objects such as a cabin caviar dish and highly visible wheel hub caps. The car can function without these components so the use of ceramic is a strategic brand message of quality using the history of German porcelain production. In newspaper articles the car has been called the ‘Porcelain Roaster’ (King, 2011). It is interesting that the marketing strategy focuses on the use of porcelain above a number of other high tech or luxury materials the car uses showing the strong socio-cultural symbolism of porcelain to quality.
The downside to that is ceramic also has connotations of fragility, through the traditional use of porcelain to make translucent and delicate bone china. Ceramic is a strong material if manufactured to appropriate standards, and the biggest challenge is to get consumers to overcome perceptions of fragility. This is done through transparent disclosure of manufacturing and product standards on both the website and promotional material (Goldfrau Website, Technical Specifications, 2011).

The material properties of ceramic glazing mean the product has low friction. I have found in prototype testing little or no lubrication was needed. The product can be warmed or cooled to personal taste for use and warms to bodily use. Ceramic production is a batch production process. Batches can be made in various quantities depending on demand—editions of different styling can be easily incorporated into production. Nonetheless, it is still an un-mechanised and hand laboured process, especially if a high-quality product is required. Goldfrau was the first company to use ceramic for sex toy production in an industry not known for product safety considerations or disclosure so I was aware of promoting product safety through information published on the company website (Goldfrau Website, Technical Specifications, 2011). There are no product guidelines for sex toys of any kind within the Australian Standards framework (Australian Competition and Consumer Commission Website, Product Safety Australia, Product Categories, 2011) so the only legislation I could comply to was broad consumer guidelines in the Australian Trade Practices Act, (Australian Competition and Consumer Commission Website, Legislation, 2011) which states it is the responsibility of the manufacturer to make a safe product.

To complete the product development I engaged an engineering company that specialised in ceramic testing. They had to devise a number of specific strength tests and give me the range of forces it would take to break the product under pressure. I compared these to gynecological figures I obtained about the maximum muscle
strength of the vaginal muscles from a gynecologist, and further asked another
engineer to double check my own conclusions that the two sets of forces were
different. That is, the forces required to break the product were substantially higher
than the maximum muscle strength of the vaginal muscles. This can only be enforced
if the production standards are of a high quality and this has to be continually
monitored. Another safety issue is the composition of the decal and its potential
ability to wear off over time. This is resolved by a use of a food safety decal, which
has an extra layer over the decal ink that prevents wear or degradation. I have the
decals manufactured in Australia and any that might be outsourced to printers in
overseas countries are independently lab tested.

I investigated the possibility of manufacturing in China, with the aim of obtaining a
lower unit cost. I did not take up this option as I could not monitor the quality of the
manufacturing in the same way as I could if the products were made in Australia. The
products are manufactured in my own city and this also fulfils an environmental
design consideration which is to keep product lifecycle impacts lower by
manufacturing close to the company base. Of equal importance was the ability to
monitor quality of production. On the company website (Goldfrau Website, Technical
Specifications, 2011) I have detailed information about the testing of my products,
the specifications of my products and the qualifications of myself to be designing and
overseeing the manufacturing of these types of products. This is an open and detailed
level of transparent product disclosure that has been missing from adult industry
brands that have a history of labeling their products as novelties to avoid the legalities
of unsafe, poor quality or badly functioning items (Biesanz, 2007).

There are a number of important product considerations that increase the overall
quality of the product, especially compared with cheaper ceramic products now
entering the market. Firstly, the construction of the product, as a fully enclosed piece
of ceramic, adds to increased labour and handling issues, but improves the overall
functionality and strength of the product. Most ceramic objects are cast as hollow forms with one open end as this is the easiest and cheapest way to produce the object. An enclosed form, such as the Goldfrau design, is more difficult to manufacture and increases the difficulty of firing. Secondly, manufacturing in Australia increases the unit costs but ensures greater monitoring of the production by myself. Lastly, the product comes encased in a leather wrap or case (see Figure 5.5) that acts as protection for the product in transportation, and over its useful lifetime. The casing is a holistic approach to the design, where the product is considered in the context of its lifespan. It adds value to the product, protects the product during its lifespan and protects the product during transportation.

Overall, those values I want my products to embody are high quality of manufacturing and finishing, high quality of styling and emotional design values, and transparent company and product disclosure information. These values are the platform of values used to create the company and product branding. By shifting the product aesthetics and branding away from literal interpretations of genitalia or symbols and conventions of pornography and promoting high product quality, it was my intention to create a brand that would appeal to female consumers who wanted variety from adult industry product. It was my intention to establish a niche in sex toy production that could allow these products to be retailed or marketed outside of traditional adult industry networks. Lastly, it was also my intention to create product disclosure benchmarks around quality and safety issues that are standard for other consumer product categories.

**Branding: the Goldfrau Project**

While designers are not trained to be experts in marketing, they are trained to be aware of consumers’ needs and desires (Best, 2010; De Mozota, 2003, Weiss, 2008). During product development the industrial designer is trained to interpret into the design the considerations of the user in the context of the parent companies brand
identity (Weiss, 2008). De Mozota (2003, p. 81) states on the relationship between design and branding:

In theory design and marketing share the same mind-set of developing an understanding of customer needs and the factors that influence those needs in order to establish healthy customer relationships.

The peripheral marketing or communications that goes with a product is often the first encounter a consumer has with the product and, hence, the importance of establishing the brand (Neumeier, 2003). The brand and product are not separate entities but part of a package of communications attempting to relate to and influence the consumer—both are of equal importance in establishing a relationship with the customer (Clifton, 2009).

Branding is misunderstood as being about a logo or a catch-phrase or the visual identity of a company. Clifton (2009) describes its application as an overarching holistic direction, purpose, vision or differentiation of a company. Clifton states (2009, p. 9):

Branding needs to start with a clear point of view on what an organisation should be about and how it will deliver sustainable competitive advantage; then it is about organising all product, service and corporate operations to deliver that. The visual (and verbal) elements of branding should, of course, then symbolise that difference, lodge it memorably in people’s minds and protect it in law through trademark.

Neumeier (2003) discusses the concepts of feeling and emotion in creating successful brands that run contrary to business models and practice that revolve around quantitative studies, logic and rational thinking. The goal of branding for companies
is to develop brands that consumers emotionally identify with, while at the same time creating rational and organised business structures that deliver what is promised (Gobe, 2001; Kornberger, 2010; Neumeier, 2003). I had created a ceramic product that was to deliver a quality experience to the consumer, yet to get the consumer to experience the product I had to create an emotional identity for the products that potential consumers would react to through the visual branding that was reflective of their own identities and lifestyles (Norman, 2004).

Neumeier (2003) also states that creative design and innovation that differentiates the company within the market place is as important, if not more so, than a good business strategy. He argues that a good business strategy will be less successful if not executed in a creative way that captures the mind of the customer. This also fitted with the initial research into sex toy production and retail discussed in the earlier chapters that indicated that for the product genre to move away from taboo associations, product and brand differentiation must be established away from traditional adult industry symbols and conventions. This strategy had been embedded into the product design through material, manufacturing and aesthetic considerations and then became a goal to carry through into brand identity. I argue that there is a synthesis between the Goldfrau product values and brand values with a view to creating brand differentiation in the market place. The differentiation I had was the high quality of manufactured product and the value-added design through the use of packaging and graphical elements. The product is the physical embodiment of the brand values.

In terms of the resources allocated to the project Pandarosa, a communications design studio, and Goldfrau collaborated to create all of the artifacts required for brand identity from product, to packaging, to websites, to exhibition spaces, to advertising. Figures 5.1 to 5.15 show examples of the types of artifacts created for both the practical purposes of delivering information and the branding purposes of creating a
unique brand. In relation to ceramic products, the combination of the product design and graphics creates a unique collaboration. This reflects Neumeier (2003) strategy of differentiation as a key factor in the success of a brand.

Pandarosa and Goldfrau developed a coordinated visual identity, created packaging, exhibition spaces, advertising, trade brochures, retail information brochures, point-of-sale displays, posters and a website in line with what I argue are the product values and company values I wanted to project (Figures 5.1 to 5.15). That is, we created a brand that represents a high quality product with a non pornographic aesthetic that—for certain but not all female consumers—has an emotional and psychological quality that defines those products as more female-centric than adult industry products.

The following is a description of the design outcomes of the research that provides an example of a design solution that addresses the concerns identified in the earlier research outlined in Chapters 2, 3 and 4. That is I have argued that sex toy commodification is considered taboo because of contemporary and long standing associations with pornography and the adult industry that use symbols and conventions that do not reflect appropriately contemporary female consumers. The Goldfrau outcomes are an example of product and brand differentiation away from those historical symbols and conventions.

**Project Outcomes: Creating Identity and Product Branding through Design, Placing Goldfrau in Events and Retail Outside of the Adult Industry Networks**

The design outcomes of this section are graphic artifacts created in collaboration with graphic design team Pandarosa, except for the Goldfrau brand mark (Figure 5.1), which was developed by cartoonist Rich Warwick of Rubber Room. Pandarosa was chosen to develop the identity of Goldfrau because of their strong playful visual style and experimental attitude to studio projects. While successful as commercial graphic
designers, they have built the success of their studio in part on a large number of collaborative projects with a range of different artists, multimedia designers and industrial designers (Feagins, 2008; Indesign, 2010). It was important to be able to work with graphic designers who had a strong sense of the collaborative process.

In 2005, starting to develop the possible identity of the company and products, I was aware that the small number of new companies producing sex toys such as Lelo or Myla, had tended to create clean and simple visual identities. While there was nothing wrong with the branding and identity they had developed, I wanted both to differentiate the Goldfrau identity and create something that was playful, that could be manipulated or changeable and yet still retain the same sense of identity. Pandarosa have achieved this because their visual process involves a constant evolving and reworking of graphics, symbols and motifs (Feagins, 2008; Indesign, 2010). If Figures 5.3 to 5.15 (excluding Figure 5.13) are seen as a whole body of artifacts, there is a constant re-working of the brand mark and motifs into different communications material. Recurring motifs such as the brand mark, dildo symbol and ink-spot outlines (suggesting both a keyhole to look into and a psychoanalysis test), foliage, feathers, shoes, caps and legs interchange within a constant palette of colours.

Figures 5.3 to 5.15 (excluding Figure 5.13) are a range of graphic outcomes developed through Pandarosa’s studio for the Goldfrau product branding and company identity. They are not every single outcome used in the marketing of the products or business but I have chosen them as evidence in that they are indicative of the overall sense of company identity. The design process or method to achieve these outcomes is not being put forward as innovative. What is innovative is the use of such identity and branding in the context of the sex toy industry as represented by adult industry companies. It is the development of a company that attempts to sit outside the symbols and conventions of the adult industry, for the purpose of creating variation, difference and choice within the market place at the same time legitimising
sex toys within the product design genre through the use of industrial design process and methods.

**Project Outcome 2: Events Outside of Adult Industry Networks**

This section discusses 2 events which were deliberately chosen to situate the products outside the adult industry and/or within the design context. The Goldfrau product launch was used to announce the arrival of the product line at the *Melbourne Design Festival* 2006 putting in the context of an event outside of adult industry possibilities. The *Paris Lingerie Fair*—attended in February 2008 was chosen as a non adult industry event—one of a small number of opportunities available to high-end sex toy producers. In terms of the possibilities available for both types of events the overriding goal was to promote the product line into non-traditional adult industry events or industries. This addressed the research question directly through an attempt to promote and market the brand outside of the adult industry into mainstream, non taboo commercial fields such as design and lingerie by creating a product line and brand identity that differentiated itself away from adult industry symbols and conventions.

**Melbourne Design Festival July 2006**

The product launch at the 2006 *Melbourne Design Festival* was an opportunity to present the product and company into the design industry. The launch was attended by 300 guests from design industry representatives, university design academics, and other festival attendees.

Designers are by nature critical, judgmental and exacting of standards. It is our job for our clients to be such. To place something before your peers in such a public manner is nerve-racking. But, if you want to trial the idea that a socially unacceptable product genre such as sex toys can be legitimised through product and
communication design this is as good a place to start as any. Product launches are also notoriously boring affairs, so in going back to branding strategy, I wanted to use this opportunity to create differentiation. Pandarosa and Goldfrau constructed an event in a warehouse atmosphere for a crowd of 300, providing a bar, a band, a DJ, a range of visual projections, a 14 metre graphical timeline depicting moments in the history of sexuality to keep people amused, a shopping environment and, last but most importantly, the Goldfrau equivalent of cigarette girls, taking the product to the masses in a playful way. The beer was all drunk and the shop was nearly sold out. The alcohol and the entertainment did help to differentiate the launch as entertaining rather than boring, but more importantly, it did pass the designers’ test of approval, as evidenced through the sales. Male customers in particular divulged that they had never bought a sex toy before but thought their partners would like this one.

I asked for the opinion of Product Designer Mark Strachan, who has been both a product designer and educator in both Europe and Australia for over 25 years to give his assessment of the launch and brand in 2006 of which he attended. He states (M. Strachan, personal communications, July 22, 2011):

The proposition for the sex toy - its form, materiality and execution - marked a significantly different approach that clearly differentiated itself from the competition in the mainstream adult industry. The launch in 2006, as part of the official Melbourne Design Festival, very much in the public domain— proved to be a resounding success with attendees from the design community, both professionals and academics, who were captivated by the product itself and also the supporting exhibition that contextualised the history of sex toys and the sex industry. This approach highlighted the sophisticated considerations that Judith had embraced in creating a very innovative and inoffensive product with a seductive allure - a perfect foil to the vulgar and crude products that are usually
associated with the adult industry. The discriminating branding also illustrates a mature, subtle, yet provocative, means of promoting and reinforcing the brand values and aspirations of the product that are again contrary to the depiction and practices conventionally portrayed in the adult industry. In conclusion, I believe that Goldfrau products are exemplary designs that provide the contemporary female consumer with a high quality product that is a very real alternative to the many tawdry, poor quality merchandise commonly promoted in the adult industry.

The montage image in Figure 5.13 is meant both to convey a sense of atmosphere and a target market group. Again, as in line with the company values, the idea is not to desexualise either the products or events. The people who attended the launch were relaxed about sexuality and sex, happy to see a humorous side, and while the event was a mixed crowd of ages, sex and sexualities there was an underlying feeling of respect about female sexuality. It was not about female sexual objectification but female sexual celebration. And despite the revelry it was about good design applied to an unusual area, and that was not lost on those that attended. Besides Strachan’s comments, the above description of the event is my own opinion. In hindsight, some surveying of the crowd would strengthen the validity of mine and Strachan’s comments to the general success of the event in validating the design and branding as being able to exist commercially outside the adult industry.

**Paris Lingerie Fair (International Salon de la Lingerie) February 2008**

The traditional trade shows for sex toy producers are the adult industry trade shows of AVN in the United States, Berlin Venus in Germany and in Australia, Sexpo as discussed in Chapter 3. They involve not just the promotion of sex toys but other commodities of the adult industry, in particular, the promotion of mainstream (and
sometimes alternative) video pornography. The decision to market the Goldfrau brand outside of traditional adult industry networks was not anti-pornography stance in terms of the morality of such artifacts, but rather to focus on a female-centric market rather than the traditional male consumers of adult industry products and services.

Exhibiting at the *Paris Lingerie Fair* was in-line with both product values and branding strategy to differentiate away from adult industry symbols and conventions and into non taboo commercial fields. By 2008 the event was allowing a small amount of high quality sex toy producers to exhibit. Goldfrau was asked to provide evidence to the exhibition committee about the standard of product and brand before it was accepted for exhibition.

This was an opportunity to develop sex toy retail beyond adult industry stores. This is not an original idea. Myla, a British Lingerie brand, had developed both lingerie and sex toys as product lines from 2002. Anne Summers, a large UK lingerie chain is one of the UK’s biggest sex toy retailers selling products through their party plan and retail businesses (Storr, 2003). Anne Summers dominates the bottom of the market and retails the usual mainstream adult industry product as documented by Storr’s (2003) sociological study of Anne Summers home parties. Through my agent I knew that some of the newer companies like Goldfrau—Lelo and Jimmyjane, were to be exhibiting along-side Lovely Planet at that fair. Lovely Planet, a lingerie distributor was starting to promote a range of high-end sex toys as part of their catalogues. It was an opportunity to be part of a group of producers like myself looking for retail opportunities beyond the adult industry networks, through lingerie retailers starting to retail collections of sex toys.

The work shown in Figures 5.14 and 5.15 is a collection of images from the exhibition stand. It is collaboration between Pandarosa and Goldfrau. The three-dimensional element of the stand had additional help from Industrial Designer David
McDonald and the costume was created by Melbourne-based Fashion Designer Sprinkle Magic as a brief from Goldfrau. The costume is worn by Dominique Hall, who kindly agreed to help me pull the exhibit together in Paris.

The brief was a tongue in cheek ‘Bavaria Fantasy Theme’ and this was an opportunity to develop the already existing visual identity into a 3D environment. All of this is done with an underlying sense of humour as the motifs assembled for the exhibit are a collection of over-the-top Germanic stereotypes from Bavarian castles, cascading mountains and kitsch woodland animals to a risqué adaptation of a milkmaid’s dress. The ethos of the artifacts reflects the branding strategy outlined earlier in the chapter to be suggestive, explicit, cheeky and humorous.

Three types of retailers that were interested in the product range at the event were lingerie stores starting to supply small but high-quality ranges of sex toys; niche or boutique department stores or a new generation of sex stores predominantly run by women for female consumers. On the whole, I found the event respectful to females with most of the traffic female retailers from small to medium sized enterprises. Because the fair is a trade-only show there is no large crowd of public, like Berlin Venus, that attracts large volumes of males to interact with models (and in the case of Berlin Venus, strippers and pornography actresses). The trade discussions at the event revolved around product attributes, costs and the needs of the largely female customers of the trade retailers.

The exhibition of the Goldfrau brand at both the Melbourne Design Festival 2006 and Paris Lingerie Fair 2008 demonstrates that the type of product values and brand differentiation Goldfrau represents that moves away from adult industry symbols and conventions allows for the marketing and promotion into other fields besides traditional adult industry networks.
Project Outcome 3: Retail Outside of Traditional Adult Industry Networks

In relation to retail, the majority of my representation has been through a new generation of female-centric retailers, which I will discuss in greater detail in the next Chapter 6. Since 2006, Goldfrau products have been retailed in the United States through Good Vibrations wholesale division, selling in retailers such as Good Vibrations, Eden Fantasy, Coco de Mer LA and Smitten Kitten. In Europe the products have been represented by Femme Fatale and Frauenfreunde in Germany; SugaGloss, Lascivious, Coffee Cake and Kink, La Belle Époque, Plumes Noires and Aphrodite in the UK; Passage du Desire and Les Nuits Blanches in Paris; Misty Beethoven in Rome and Magnolias in Vienna. In China Goldfrau is represented by Bloomnine in Shanghai and in Australia by Mia Muse and Passionfruit.

These retailers do not fit within the traditional adult industry networks. They are part of a commercial trend I detail in Chapter 6 that has developed in the last decade. These retailers have developed bricks-and-mortar or online environments that focus strongly on attracting female consumers. They are an evolution of the original female-centric sex stores developed in the United States in the 1970s as discussed in Chapter 4. The characteristics that differentiate these stores from adult industry retail environments is the use of non-pornographic styling and branding, a high level of information provided to the consumer about product, functions or product safety and the sense of community created around the sites. This argument is detailed in Chapter 6 through an analysis of retailer branding and a literature review.

Below is an unsolicited review from on-line retailer La Belle Époque in the United Kingdom. Some technical information has been incorporated from my website such as wall thickness, vitrification and temperature—the rest is all their own assessment. I
provided no text and was unaware of this review till it was posted. The review states
(La Belle Époque Website, Goldfrau, 2010)

In the vast ocean of the sex toy industry, the creation of a ceramic toy is a rare event, and of those most are not something we would wish to praise. Not so the creations of Goldfrau. Goldfrau of Australia are without doubt the benchmark for those wishing to create a ceramic dildo. Goldfrau use the finest stoneware ceramic to create toys with such clean, unerring lines that their beauty has a mysterious pull. As dildos come, Goldfrau are certainly some of the most simplistic; their perfect forms untouched by gimmicks and useless additions. With pleasure giving in mind, Goldfrau have given their dildos all the tools to provide a stimulation which is true to nature while enhancing it in a very organic manner. With one end a simple spherical ball and the other at the end of a long widening shaft, the Goldfrau dildo allows the user to choose which type of stimulation they desire; the spherical tip allows the user to discover the G-spot, while the shaft offers wonderfully classical penetrative sensations.

Goldfrau’s Miss White dildo is certainly one of the most alluring adult toys one could wish to behold; her graceful figure is an ocean of unblemished natural ivory white.

Goldfrau dildos are made from the highest quality ceramic which, once glazed, provides a toy which is incomparably smooth. The ceramic is between 3 and 4mm thick and ensures the dildo is incredibly strong while remaining lightweight. All Goldfrau toys are fully vitrified so they cannot soak up any fluid and makes them incredibly easy to clean. To get the very most from yourself and your Goldfrau, make sure that you experiment with temperature.

This review indicates that the branding and design values attempted to convey in the research project—a high level of quality manufacturing and attention to function and
ergonomics conveyed through product form and branding are able to be interpreted for the female-centric market.

The above quote shows an example of retailers who are willing to promote brands that emphasise design considerations and branding high levels of product quality, manufacturing and product disclosure. The reflective and emotional design values embedded in the product design, product branding and company identity, have been responded to and accepted by a group of retailers and consumers that sit outside of traditional adult industry.

**Summary**

The design outcomes for this research, created using industrial or communications design processes and methods, privileging a contemporary understanding of female sexuality and the female consumer, were successful in entering the market global place. The products have been placed in a range of countries, generally within ‘female-centric’ retail environments (that will be discussed further in the next chapter) and have been accepted as good quality design by industries outside the adult industry such as lingerie and design as shown in the events above. The creation of the Goldfrau brand, through an industrial design process, provides an example of a possible solution to developing female-centric sex toys that moves away from the historical taboo associations of adult industry products and services.

The outcomes of the research design project demonstrate that the application of an industrial design process and its methods to the product genre of sex toys that put the needs of a contemporary female user, both physical and psychologically at the centre of design considerations. This is within well-established frameworks of product safety and manufacturing standards. Core tenets of the industrial design process and training involve the understanding of manufacturing quality, the centrality of the emotional, psychological and physical needs of potential user to the outcomes, and
the ability to innovate existing materials and processes into a variety of new configurations (DIA Website, Industrial Design, 2011; Poggenpohl, 2009; Rhea, 2003; Valtonen, 2007). The Goldfrau product values and branding is an example of how an industrial designer can balance the technical design considerations of functionality, manufacturing processes and product quality with the potential female users’ emotional and psychological needs for a highly reflective product that relates to their sense of self and lifestyle.

This is central to addressing the research question through a design solution. The taboo nature of sex toys, I argue is decreased as the design moves away from traditional adult industry symbols and conventions as evidenced in the outcomes of this chapter as the marketing and promotion of sex toys moves into commercial fields other than the adult industry. The Goldfrau project is an example of the ability of the design process to change the socio-cultural values of sex toys by creating products that have significant differentiation to adult industry products and services in both product quality and function and aesthetic meanings.

The Goldfrau project is but one outcome possible. In chapter 6, I present a range of examples from other companies that have developed brands within the first decade of the 21st century that are producing products ranges that I will demonstrate display the same design criteria as the Goldfrau brand through the application of industrial design process and methods.

This will place the Goldfrau project within a commercial trend that sees a shift in sex toy product and consumption driven by the industrial design profession that relates to broader socio-cultural shifts of technological change and female demographic change (that will be discussed in chapter 7). These last chapters, demonstrate in this period-the first decade of the 21st century, how industrial design process and methods enable a contemporary understanding of female sexuality to develop products and brands
that differentiate themselves from traditional adult industry symbols and conventions. This develops higher quality, innovative products and services that create greater competition and diversity within the market place that will enable a change of perception of the sex toy genre from taboo to mainstream commercial products.
Figure 5.1. Goldfrau Brandmark created by Rich Warick, 2005. Source J.Glover.
Figure 5.2. Goldfrau Miss White

Figure 5.2. Goldfrau Miss White, Product Detail. Source J.Glover, 2006.
Figure 5.3. Goldfrau Miss Pink and Miss Saigon

Figure 5.3. Miss Pink large, Miss Saigon classic, Goldfrau Ceramic Dildos, Porcelain Ceramic. Graphics Pandarosa. Source J.Glover, 2006.
Figure 5.4. Goldfrau Miss Penny

Figure 5.4. Miss Penny Classic, Goldfrau Ceramic Dildo, Porcelain Ceramic, Graphics Pandarosa. Source J.Glover, 2008.

Figure 5.5. Goldfrau Leather Wrap

Figure 5.5. Goldfrau Packaging, embossed leather wrap. Source J.Glover, 2006.
Figure 5.6, Goldfrau Website Homepage

Welcome to Goldfrau (Australia)
the desperate housefrau everywhere.

PRODUCT AND COST

Goldfrau design is divine!

Goldfrau is a unique, stylish, ceramic dildio
designed to give you a superior experience
of pleasure. Find out why we think that it is
the most luxurious slide in the world.

Wholly Australian designed and
manufactured, the Goldfrau slide is a quality
product available in two sizes, (classic and
large) and in a choice of two colours, Miss
White and Miss Black.

Figure 5.7. Example of Goldfrau visual branding

Figure 5.7. Product launch invitations. Graphics Pandarosa. Source J.Glover, 2006.
Figure 5.8. Example of Goldfrau visual branding


Figure 5.9. Example of Goldfrau visual branding

Figure 5.9. Event invitation motif. Graphics Pandarosa. Source J.Glover, 2006.
Figure 5.10. Goldfrau Communications branding. Graphics Pandarosa. Source J.Glover, 2006.
Figure 5.11. Goldfrau Event Poster—shop graphics

Figure 5.11. Goldfrau Communications branding. Graphics Pandarosa. Source J.Glover, 2006.
Figure 5.13. Image Montage of Goldfrau Product launch—Melbourne Design Festival 2006.
Figure 5.14. Goldfrau Stand at Paris Lingerie Fair 2008

Figure 5.16. Goldfrau Stand at Paris Lingerie Fair 2008

Chapter 6

Trends in the Next Generation of Sex Toy Producers and Female-centric Retailers 2000-2011

In this chapter I discuss and outline a range of new generation companies and products that have emerged at the same time as my own project, in the first decade of the new millennium. They represent a new commercial trend in sex toy design and production away from adult industry conventions. The research design project should be seen in the context of this emerging trend. These companies are also redefining the genre of sex toys by using the industrial design process and methods discussed in chapter 5 to increase product standards and safety, and promoting transparency about those standards through company communications.

The products these companies have developed create variation in sex toy production away from adult industry symbols and conventions, in particular a move away from products displaying literal interpretations of genitalia or animals or any other novelty gimmicks. In the second half of this chapter I also document a range of retailers creating bricks-and-mortar or online retail environments that are more female-centric in functions and branding in comparison to traditional adult industry retail. I discuss why the services these retailers offer are more in line with the needs of contemporary female consumers and argue this is evidence of a major shift in the types of products and services again, away adult industry symbols and conventions. The same shift is happening at both the production and consumption ends of the supply chain.

Initially, the Goldfrau design project was developed to explore the potential for industrial design processes and methods to create substantially different products from those that constituted adult industry aligned sex toy production from the period 1970 to the present. As the project has developed through the last decade I have seen a number of new product design companies and retailers designing and marketing
product in a way that is substantially different to the adult industry companies and similar in intent to the Goldfrau brand. As discuss above I will outline a range of these companies in this chapter and discuss how and why I can argue they constitute a design and commercial trend.

This is central to answering the research question of how sex toy commodification may go from a taboo activity to a socially and commercially mainstream one. The examples in this chapter, like the research design project, are using industrial design process and methods to create products and services specifically aimed at contemporary female consumer needs. That when applied, create product differentiation away from tradition pornography symbols and conventions and associated historical taboos.

Goldfrau design outcomes then can be seen within the context of these wider shifts within the sex toy industry, as the successful marketability of the Goldfrau brand is not an isolated incident, but now part of a new commercial trend. In the first section of this chapter I outline the establishment of these new generation companies. I discuss and explain how and why these products and services differ from that which had been the standard adult industry product from 1970 to the new millennium. I also argue that the industry is being influenced by companies from outside the adult industry that are using industrial design processes and methods to create a new generation of products. The companies that I document are created by industrial designers, engineers with product development experience or entrepreneurs and companies who have hired industrial design consultancies to develop product ranges.

The commonality to Goldfrau and these other new generation companies is the use of industrial methods and process to create products and brands aimed at a contemporary female users. This addresses the research question by providing further
examples of how industrial design process and methods enable sex toy production to move to a socially and commercially mainstream activity.

**Changes in Sex Toy Design and Consumption in the New Millennium**

In any industry there is a supply chain of entities across the design, manufacturing, distribution and retail sectors (Best, 2010). The areas that I will discuss are changes in the designer/producer, distribution or marketing opportunities, and the retailers. In the first half of the chapter I will discuss the changes to design and manufacturing by a new generation of design companies that are different from adult industry producers. I will outline the growth of these new generation product design companies, producing sex toys that I argue are different from the adult industry aligned products of the late 20th century and explain how they are different. I will cite a number of examples and focus on the use of industrial design methods within the product development process, the disclosure of product standards and product safety and the branding or marketing of the products or companies to differentiate them from adult industry product. In the second half of the chapter, I will discuss the growth of the female-centric retailer, in the form of either an online presence or a bricks-and-mortar store that has developed alongside a new generation of producers, also developing distinctly non-pornographic or non-conventional adult industry brands.

**Discussion of New Product Design Companies and Sex Toys**

Figures 6.1 and 6.2 are a visual collection of a range of products now available to consumers in the sex toy genre. These products have been developed in the last 10 years. They are by no means the full extent of product available, as each company tends to have a number of different products available but they are indicative of an emerging trend around higher quality product standards and a move away from the symbols and conventions of the adult industry, especially in relation to branding. The visual documentation is intended to convey the range of materials, forms and
aesthetics now being used. A comparison with the documentation of adult industry product in Figure 3.5 shows a differentiation from the traditional themes of the adult industry around literal depictions of body parts, bright flashy casing, pseudo-technological features, animals or other novelty gimmicks.

The images in Figures 6.1 and 6.2 have been chosen to convey aesthetic and material changes to sex toy product design. I have also compared these companies with a range of criteria around product standards and material safety that the consumer can access on these company websites. These criteria, listed below, represent a promotion of standards and a transparency of those standards that is in line with other product genres. I have analysed these companies’ websites to look for demonstrations, which I will discuss in further detail with specific reference to a number of new generation brands in the next section. The criteria I have looked for on producer websites is:

- Disclosure of material safety and manufacturing standards.
- Is transparent and clear about material safety and manufacturing standards.
- Promotes or discusses designers’ qualifications or experience.
- Product Design Awards or other Design Awards.
- Discusses consumer as female and promotes a user-focused design approach or a female sexual health approach.
- Evidence of promotion of company and branding into fields outside of adult industry such as design media, fashion or lingerie.
- Product company and branding shows no evidence of conventional adult industry symbols and conventions such as literal interpretations of genitalia, novelty gimmicks or branding material that promotes women as potential porn stars.
Below I will discuss trends in relation to forms and materials and then I will discuss in detail some of the companies chosen in relation to the above criteria. To clarify the use of the term ‘female sexual health’ in relation to the criteria above, it is not meant to suggest that women who consume adult industry products are sexually unhealthy— it is a reflection of the approach some next generation sex toy companies use in both design process and subsequent marketing material. These companies position themselves in the market place by promoting their design processes as informed by scientific or medical information. They are positioning themselves in marketing material away from the notion that sex toys are novelty items. The company Emotional Bliss is an example of this discussed below (p. 248).

The product forms of these new generation companies represented in Figures 6.1 and 6.2 have become simplified, more visually coherent. There is a distinct trend away from literal representations of genitalia and other mainstream adult industry symbols and conventions, such as the use of novelty gimmicks as both an aesthetic style and business strategy to avoid quality design, manufacturing and safety standards.

There is evidence of experimentation into materials such as stainless steel, precious metals, jade and ceramic as well as more conventional mass manufactured techniques of plastic injection moulding and silicone moulding. There is exploration into finishes such as anodised aluminum, the etching of metallic surfaces, the application of decals onto ceramics or the layering of different coloured silicone to create patterns, decoration or detail. The processes vary from high-volume mass manufactured products to batch-production techniques, some requiring high levels of labour due to attention to detail for high-quality finishing.

This is important to discuss as these companies represent a broadening of material uses, in particular a move into more expensive materials or processes. This creates consumer choice, variety, increased competition and innovation within the market
place. What is common to all of these brands is a move away from literal depictions of genitalia or novelty gimmicks. I argue this will create a change in perception of sex toys away from historical taboos as designers and production companies treat the development of sex toys as a product genre on par with any other product genre. The companies I have detailed below enable this by applying industrial design process and methods to the product development process.

**New Generation Product Development Late 1990s-2011**

As discussed earlier, the product and commercial trends I am documenting have developed mostly in the last decade. Only three of the companies represented in the visual analysis were in existence before 2000. Babes-n-Horney developed out of an art school collaboration for the founding designers in 1993 but remained outside the broader adult industry, promoting a higher-quality product to a niche market in the UK (Babes-n-Horney Website, About, 2011). FunFactory launched in 1996 in Germany, with a conventional adult industry range but a stronger focus on manufacturing quality (Funfactory Website, History, 2011). They have since shifted their focus to creating innovative product design and have been early adopters away from tradition adult industry conventions. Candida Royalle commissioned Dutch Industrial Design consultancy Groet Design Associates to develop the Contours range in 1999 (Natural Contours Website, Solution, 2011). In 2002, Myla, a start-up lingerie company from the United Kingdom released a small range of sex toys designed by internationally renowned designers Marc Newsome and Tom Dixon (Design Week, 2001). Emotional Bliss started in 2002, Lelo in 2003, Jimmyjane in 2004, the Durex Play range was launched in 2005, Emotion Paris in 2005, Goldfrau, OhMiBod, N-Joy and Jejou all launched in 2006—Jejou created by UK Industrial Designer Geoff Hollington—WeVibe in 2007 and finally the decade closed with an interesting development as Philips Sound and Vision launched two vibrators onto the European market in 2008.
Candida Royalle was one of the first sex toy producers to turn to an industrial design consultancy to develop an alternative sex toy brand to mainstream adult industry product. The website states (Natural Contours Website, Inspiration, 2011):

In 1996 a team of experts in the fields of industrial design and sexual health came together to address the needs of women who were dissatisfied with the lack of intimate personal massagers on the market that encompassed taste and discretion.

The products appeared on the market in 1999 and Figure 6.3 is an example of the range developed by industrial design consultancy Groet Design Associates. Royalle, a former pornography actress had been developing and promoting both adult films and sex toys that differentiate themselves away from adult industry conventions by taking a female perspective (Juffer, 1998). Royalle identified that females were consumers of sexual commodities but that these commodities were designed and produced from a very male-centric perspective. She focuses her target market to females and couples who want discreet, stylish and ergonomic products (Candida Royalle Website, About Candida, 2011). Royalle has also been influential in the film market as developing a genre of adult films called couples’ films. These films are produced to show a more realistic, non-sexist ideal of sex between males and females (Juffer, 1998; Candida Royalle Website, Frequently Asked Questions, 2011)

Royalle’s products redefined sex toy production away from pornographic themes as shown in Figure 3.5. Hers was one of the first companies to engage industrial designers in the product development process—Groet Design Associates from Denmark and from the above comment on her website she has taken a user-centric approach by putting the needs of female consumers at the centre of design considerations. The outcomes of this product range deliberately moved away from a porn aesthetic both in product styling and packaging.
In 2002, UK Lingerie start-up company Myla commissioned two designers; Dixon and Newsome, to develop a small range of vibrators (see Figure 6.4). Myla’s female entrepreneurs, Charlotte Semler and Nina Hampson, were distinctly aiming for brand differentiation away from adult industry symbols and conventions (Design Week, 2001; Dowdy, 2005; Ferla, 2004; Times, 2002; Toronto Star, 2004; Wicoff, 2004). From my own interaction with these products (that is, I have used them) both Dixon’s Bone and Newson’s Mojo (Figure 6.4, left and middle images) are aesthetically pleasing but underperforming; they are the classic case of designer products that look stylish but do not work well. Nevertheless, Myla achieved two things. The styling and forms of the products shifted sex toy design away from adult industry themes and publicity in the UK was leveraged off the names of these two designers, bringing the topic of sex toys out in to the mainstream media. The publicity generated was influential in placing these products into the mainstream news, fashion media and design media. Both Dixon and Newson are two of the most well known industrial designers globally and what they design generates discussion and media both in and out of the design industry (Design Week, 2001; Dowdy, 2005; Ferla, 2004; Times, 2002; Toronto Star, 2004; Wicoff, 2004).

After Myla commissioned Newson and Dixon for their range in 2002, a new generation of sex toy design and production companies appeared. They have been started by either industrial designers or product designers (Lelo, Goldfrau, Jejou, Philips, Betony Vernon), engineers with product design experience (Jimmyjane, WeVibe), or the company has commissioned an industrial design consultancy, as in the case of Durex’s play series commissioning Seymour Powell like Royalle and Myla. What this section has discussed is a range of start-up design companies and entrepreneurs from outside the adult industry (Royalle excepted) entering sex toy design and production from the end of the 1990s. It is important to differentiate these companies from the adult industry as I argue, and will outline below; these companies bring new practices and standards to sex toy design and production that begin to
move sex toy outcomes away from historical taboos through design and branding outcomes which target contemporary female consumers not re-work traditional adult industry symbols and conventions.

**Attributes and Examples of Product Company Trends**

In 2008 Philips Sound and Vision launched two massage devices onto the European market (see Figure 6.5). American sexuality writer and commentator Cory Silverberg (2008) remarked in his review that the Philips products were not a radical or unprecedented move by a large company, citing Durex and Trojan’s entry in the market. I argue that since both these companies are condom providers producing sex toys is not a differentiation to their brands.

An article in *The Times* business on-line portal by Mortished (2008) on the development of the Philips product outlines the tension in the organisation regarding a product category that has been traditionally defined as taboo. Philips entering the market is unprecedented for a multinational electronics company with so many stakeholders and a well-established brand to protect and Mortished states (2008, paragraph 6):

> Hugely controversial, the proposal to launch a marital aid under the Philips brand navigated a minefield of internal scrutiny by executives nervous of its impact on a world-renowned household appliance brand. The stakes are high—the massager is clearly intended to lift the flagging sales performance of Philips’s consumer business. The screening even included an exceptional presentation at a very early stage to the top board of directors of the company. Before the incubator team overcame the hurdles, they launched a blitz of research into attitudes and behaviour.
The Phillips press release relating to the massagers is documented on electronics website Gizmodo by Eaton (Philips Press Release, 2008). It describes how the research team used a range of surveying and focus groups to determine contemporary attitudes to sex toys and sex toy buying. In particular they were interested in the reactions of the male partners of female sex toy users as a way of creating products that addressed couples use. They determined there was a gap in the market for products that addressed the concerns of both partners—not just that of the female consumer. The press release (Eaton, Philips Press Release, 2008) also states that there was a reaction from respondents against typical adult industry retail environments as being sleazy and a desire to purchase from a wider range of non adult industry sources. This is typical of industrial design methods that are loosely termed a user-centred approach as outlined in Chapter 5. Primary research into user needs and behaviour is identified early in conceptual design stages and translated into product design outcomes (Best 2010).

I have reviewed the support material available on the Philips website, including product overviews and technical specifications (Philips Website UK, Sensual Massagers, 2011; Philips Website UK, Philips User Manual, 2009), the Philips press release available at Gizmodo (Eaton, Philips Press Release 2008), two online reviews from electronic gadget and sexuality bloggers (Silverberg, 2008: Eaton, 2008), and a video review discussing the merits of the product as a sex toy (Lovehoney Website, Philips Video Review, 2010). My knowledge of the product is only from the material provided by Philips or reviewers. I have only seen the products in videos or images and have not had any physical interaction.

From my observations of the technical specifications provided on the company website, the manufacturing and product disclosure is of a standard in line with the standards of all other Philips products (Philips Website UK, Sensual Massagers, 2011; Philips User Manual, 2009). The semantics of the products controls are clear.
and highly useable without prior knowledge. This would fit with Philips’ overarching design strategy of Sense and Simplicity to make product interaction intuitive and easy, ‘to intimately understand the needs and aspirations of consumers and customers in order to deliver innovative solutions that are advanced and easy to experience.’ (Philips Corporate Website, Brand Promise, 2011). In relation to how consumers would perceive the products to satisfy their sexual needs, this would, as for any other product, come down to specific individual interaction.

Philips has set a standard in disclosure around product specification, standards and safety by web publishing the products specifications in line with their other product categories. This is shown by comparing the information and specification of Philips massagers to any other product on their corporate website (Philips Website UK, Sensual Massagers, 2011; Philips User Manual, 2009). This shows the company is serious about treating this product genre with the same standards it develops all of its products.

This brings sex toy production in line with the industrial standards consumers expect of reputable companies in other product genres. Philips is known within the industrial design field as a leader in product innovation (Best, 2010) through the application of design research methods to new technological trends, putting the considerations of the potential user group at the centre of the conceptual process, regularly publishing research and development strategies, outcomes or directions (Best, 2010, Marzano & Aarts, 2003).

The move by Philips is interesting and will possibly have many implications for sex toy product in the future depending whether the product is successful commercially or not. The company has not totally avoided sales into adult industry networks as I found it available through Lovehoney, the UK’s biggest sex toy retailer, yet from the information provided by the company’s press release, the intention was to develop
retail sales through non-adult industry avenues. The products have been initially launched through Boots Chemist chains, Selfridges department store and the product retail section of Amazon UK (Eaton, 2008).

The products concept was born out of initial market research that identified a substantial range of consumers (potentially new sex toy consumers) that would be interested in buying products specifically designed for couples’ use, if the products could be bought in retail outlets that were not sex shops or lingerie stores. The Times (Mortished, 2008, Paragraph 10) article states:

Philips decided to aim its device at established couples who are put off by smutty presentation of the existing range of massage devices. More importantly, men can be intimidated by products sold in sex shops and lingerie retailers. ‘We were looking for products that wouldn’t replace one or the other partner. With more targeted products one partner feels left out …’ according to a Philips survey of committed couples aged between 35 and 55, openness to the idea was high at 35 per cent and among those, usage levels reached 42 per cent.

The above quote shows a specific design and marketing strategy to develop for the couples market and design and brand a product that could be specifically retailed outside of the adult industry. The promotional material is explicit in relation to these being non-penetrative devices designed for couples use. The implicit message is these devices will not replace the male partner. As Plantenga (European Adult News, 2007, p. 74) states about the developing designer sex toy market:

Particularly in the case of branded partner love toys, guys always compare the toy to their own penis, so if the toy is much larger and their partner appears to enjoy it more then they will be traumatized
and will never use a toy again. If the toy doesn’t resemble their penis at all then they will be happy using it.

The individual and the couple’s massager kits by Philips are designed and marketed around the function of non-penetrative body massage (Philips Website UK, Sensual Massagers, 2011). While Philips have been reasonably coy about how to describe the product, they are massagers not vibrators, and their press release clearly states that the progress of the product through development stages was given extra scrutiny by company executives, nervous of its potential to damage the brand, they have not shied away from it being a sexual product in material and information provided to the consumer or potential customer (Eaton, 2008, Philips Website UK, Sensual Massagers, 2011). Figure 6.5 shows examples of two different types of couples massagers and the product category clearly displayed on the company’s website.

Figure 6.6 shows the transparency of the massagers on the company’s corporate website. These products sit where all product information is available, not any more difficult to find as any other type of product. In searching for the products, as long as one can deduce that it would be in the Personal Care category—there they are sitting in their own separate category of Relationship care, next to shavers and hairdryers. For even greater detail about the Sensual Massagers one can follow a link to www.philips.com/sensualmassagers, which details a range of erogenous zones from areas on the feet and arms to nipples to breasts, clitoris and penis, although other more specific areas such as around the anus, the testicles, or the vaginal lips have been left out.

From the product material and notes available on the research, design and marketing processes of the Philips Massagers there is a careful consideration by the company of what exactly is permissible in relation to the disclosure or promotion of sexual functions of these products (Philips Website UK, Sensual Massagers, 2011; Philips User Manual, 2009). Nonetheless there is no denial of its sexual functions or a hiding
of these functions in the production of a completely different device. This is a break from the tradition discussed in Chapter 4 and 7 of the history of massagers and vibrators produced as health and beauty devices across the 20th century having a camouflage as another device.

Therefore, Philips becomes the first multinational non adult industry product design and manufacturing company that openly and specifically designs and markets a product with explicit sexual functions, and this represents a significant evolution in the sex toy industry. This precedent sets same standards for manufacturing, safety and product disclosure available for consumers in all their other product genres. It is also a significant socio-cultural marker in indicating that taboo Western perceptions of sexuality or sexual functioning are lessening to such an extent that a multinational product design company would add such a product genre to its range. Of the criteria listed at the beginning of the chapter Philips is represented in every point.

While Philips may represent a high standard in industrial design process, manufacturing standards and product standards transparency, other smaller providers have been following similar methods between 2000 to 2010, and in doing so are creating other variations using the product development process. FunFactory is a brand that has bridged the gap between traditional adult industry standards and conventions and a new generation of sex toy producers that experiment with styling, aesthetics, technology, ergonomic form, and a commitment to increased product manufacturing standards. The company has always stated they manufacture and design their products in Germany, with a commitment to quality (Funfactory Website, Products, 2011). Initially the early ranges from the mid-1990s revolved around more stylistic interpretations of the animal novelty vibrator type. As a product design company, they have progressed to forms outside of adult industry conventional themes as shown in Figure 6.7.
The DeLight G-spot Vibrator (Figure 6.7, left) is an example of providing a penetrative vibrator that stylistically moves away from a literal penis type and is more highly resolved as a holistic piece of product design than traditional adult industry products. The clitoral stimulator, the Laya Spot (Figure 6.7, middle) and the G-spot stimulator Delight are designed specifically for different bodily stimulation areas, with attention to resolving ergonomic issues of easy handling in use, a resolution of the holistic form in relation to materials and product semantics and a playful approach. Delight utilises the unusual form that a G-spot product will potentially create to develop the form of the product.

A number of FunFactory’s products have been able to win both the IF and Red Dot product design awards since 2008 suggesting that good product design within the sex toy genre is able to be recognised within the industrial design field alongside all other product genres (FunFactory Website, Red Dot award, 2010). Funfactory have been constant product innovators over the last 15 years, exploring products with new ergonomic functions or technology. They were one of the first companies to recognise a market for a higher-quality, more styled and simplified product that moved away from novelty depictions or literal body parts as shown in Figure 6.7 far right—the Gigolo Vibrator developed in the early 2000s. Like Philips they also publish detailed user manuals with care advice and technical specifications (Funfactory Website, User manuals, 2011).

We-Vibe do not shy away from promoting huge sales into the adult industry, winning adult industry awards since the launch of We-Vibe in 2007, which they promote on the company website (We-Vibe Website, We-Vibe II, 2011). They have concentrated their distribution through adult industry channels, yet they are an example of how a user centred design process can produce an innovative product with high manufacturing and product disclosure standards. The We-Vibe website details the development of the product by using a process of continual prototyping and testing.
with a focus group. There is attention to material safety, manufacturing quality, function and performance and environmental design standards (We-Vibe Website, We-Vibe II, 2011).

The We Vibe vibrator (Figure 6.8) is innovative functionally because it is a type of sex toy that had never existed, that is, a vibration device that has one motor that is inserted in the vagina on the G-spot area and the other motor that sits on the clitoris. This device allows for the male partner to penetrate the female partner while the device is worn, potentially resulting in the female climaxing clitorally alongside the male orgasm.

While We-Vibe’s designer and company owner, Bruce Murison, trained as an engineer not an industrial designer, Murison has followed a product development process, similar to what would occur in large companies like Philips. He did it on his own, out of his garage, finally mortgaging his house to take a gamble that the product would be commercially successful. His first run was completely sold out and 10,000 a month are now leaving the factory. This development story is used by the company for marketing and detailed in the following articles and sites (Canada.com Website, 2008; CBC News Website, 2009; Design 1st Website, We-Vibe Profile, 2011; We-Vibe Website, We-Vibe II, 2011). In the on-line article on CBS News, Murison explains how he developed the product specifications from an engineer’s perspective. The article states (CBC News Website, 2009):

…Murison, who worked as a Nortel engineer for more than a decade, said the We-Vibe was designed from an engineer's perspective. The 60-gram silicone device is U-shaped and is the product of six years and $500,000 worth of research and development. "This is, to me, not a sex toy. It's an electromechanical device," he said. "We truly look at it from a scientific point of view; in terms of plotting the x-y charts of power versus performance, versus
the third dimension of the human dynamic: What frequencies do women like?"

As discussed in detail on the company website, Murison started with a number of problems he perceived about being able to design a functionally successful couples device. Ergonomically speaking, no product on the market would sit in place, hands free during the movement of intercourse. Also Murison also perceived sex toys on the whole lack product and safety standards, and that was obvious from his years working as an engineer with product development companies. Murison states on the company website (We-Vibe Website, We-Vibe Product Information, 2010):

I had just read an article on the many problems associated with phthalates leaching from rubbers and plastics and potentially poisoning people. Being an environmentally aware Canadian applications engineer, I would have to create a toy made from something with no taste or smell and obviously phthalate-free. Medical-grade silicone would be just the solution because it warms to the body and is soft and flexible, much like skin. That disturbing news about poisons, combined with the disappointment in the existing sex toys, which often seem cheap, poorly designed, low-powered, the wrong frequency and now toxic, inspired us to get creative and attempt to make the world’s best sex toy!

The company website details that over seven years Murison developed versions of prototypes he tested with a number of willing couples, until he found an appropriate solution to problems discussed above. The product focuses on fulfilling the ergonomic requirements to stay in place yet be flexible for different body types and multiple positions through material choice and form. The functional requirements of vibration and what he has patented as Dual Harmonic vibration are resolved through the choice of motors and frequency. Health standards are resolved through choice of medical-grade silicone and a waterproof construction. Longevity is resolved through
choices in standard of componentry and manufacturing construction. Other things that Murison was concerned about were the environmental aspects of the product lifecycle and the product complies with the European Union’s environmental design and manufacturing legislation WEEE and ROHS. Design choices such as making the batteries rechargeable rather than disposable, has environment positives in creating less battery waste and increases the longevity of the product through the construction of a componentry fully encased in a silicone body without seams or battery compartments (We-Vibe Website, We-Vibe Product Information, 2010).

The We Vibe website, while also devoted to press reviews and adult industry product awards, has a range of information on the process Murison undertook, the company’s environmental standards, detailed product specifications and user-scenarios. There is a level of disclosure and transparency behind the development of the product and its outcomes, that like Philips, represent a company willing to promote higher product quality standards through a combination of a rigorous and user-focused design and product development process, a commitment to material safety in manufacturing, and finally a detailed disclosure of both the process and outcomes through the company website.

Emotional Bliss is another company that designed a range of products with a strong user-centred focus, underlined by strong product disclosure and standards and a commitment to high manufacturing quality since 2002 (see Figure 6.9). Emotional Bliss has focused on producing vibrators to increase and enhance the orgasmic experience specifically for females, rather than the couples focus for We-Vibe and Philips. They do provide a range of information on using the products within a couple’s context. The company branding depicts the products as a health and wellbeing range. The product styling is predominantly white, with amounts of soft colours highlighting specific functional areas such as control panels or those areas of the product that will come into contact with the body. In their promotional or product
material they are specific about what their product is not—the website categorically states they are not a sex toy company but a sexual health and wellbeing provider. The promotional material states (Emotional Bliss Website, History of Emotional Bliss, Paragraph 1, 2011):

> It is important to state that Emotional Bliss is not a sex toys manufacturer. The intimate massagers they have developed are specifically to stimulate orgasm in women of all ages whereas conventional sex toys are manufactured for novelty. It is important to distinguish the difference because regardless of age, all women have the right to sexual wellbeing and have the right not to feel guilty or embarrassed to purchase a product to ensure it.

In the on-line material provided about the development of the company and products they are specific in positioning themselves away from the adult industry through a discussion of a scientific method to develop their products and the use of a sexuality expert, Julia Cole (Emotional Bliss Website, History of Emotional Bliss, 2011). The quote above suggests that adult industry sex toys focus on novelty or literal sexual themes and not on achieving sexual well being for female consumers through considered user-centred product design.

Emotional Bliss used the expertise of sex therapist Cole in product development and focused their design considerations strongly on how women’s bodies work during sexual arousal and how a product can enhance those processes. As well as providing information in their product manuals on the different phases of sexual response and arousal (Emotional Bliss Website, Experts, Emotional Bliss Product Catalogue, 2011), there is also a more detailed section on their website to provide readers with information on sexual issues and vibrator use by Cole (Emotional Bliss Website, Experts, 2011). The brand focuses on providing high quality manufacturing and transparent product disclosure in the form of discussing product functions, possible,
potential or intended uses and product specifications that is available on the company’s website. This is done within a framework of information about physical and emotional sexual response.

The designers have used styling to create an aesthetic that projects meanings of health product rather than sex toy, but the promotion of the company and products as sexual health products is not a superficial branding exercise just to differentiate the company in the market place. This brand and these products are an example of developing sex toys for females where the in-depth consideration of the potential female users’ physiological needs permeates the product design, accompanying product information and website information. This is an example of a user-focused design process, where Emotional Bliss has been explicit about putting a realistic and contemporary understanding of the female body and its sexual response at the centre of design considerations.

While companies like Emotional Bliss and Philips tend towards promoting their products as health products and both the company branding and design considerations are articulated towards this, other companies like Lelo and Jimmyjane have created ranges of products with styling and branding more aligned with fashion or design accessories that differentiate them from those companies projecting sexual health or health and wellbeing brands. This is not to denigrate either brand as both Lelo and Jimmyjane follow an industrial design process and use in-house design teams of industrial designers that will be discussed below. It is to state that both companies have decided to stake out territory in the market place away from the branding of their products as sexual health products to the concept of sexual lifestyles.

Lelo was started by two industrial designers, Eric Kalén and Carl Magnuson, and an engineer Filip Sedic, in Sweden in 2003. The trio identified a gap in the market between mainstream adult industry products and the potential for products that
displayed a strong ‘design aesthetic, or a sense of quality or functionality’ as shown in Figure 6.10 (Lelo Website, About Us, Paragraph 2, 2011).

Like other companies canvassed in this chapter, their central design goals were (Lelo Website, About Us, Paragraph 3, 2011):

…of creating sex toys of better design, function, and quality than any on the market’ and ‘a rejection of the cheap plastic buzzers and substitute phalluses that made up the market of traditional sex toys. Instead, Lelo products followed contours inspired by the female form, and were manufactured with the highest-quality materials and engineering.

They believed that this ‘high-quality approach to sexual gratification was going to redefine the sex toy market—or even redefine the category altogether.’ (Lelo Website, About Us, Paragraph 3, 2011).

The Lelo design team felt that investing in a design process based on research and quality went against mainstream sex toy industry practice. ‘At the time, it went against the grain to insist on the highest quality research, design, and manufacturing standards, as cutting such corners kept costs and retail prices low’ (Lelo Website, About Us, Paragraph 4, 2011).

These Lelo website quotes discuss the process as one of initial research— ‘a design process based on research’, although they are less clear than the other companies cited where the focus of that research is, than considerations of style (non-pornographic) and manufacturing quality embedded into the product outcomes with a clear intention of differentiating the products away from adult industry norms.

Commercially, they have gone on to be successful, and have expanded their range quickly from their initial one product form in 2003 to over twelve different product
forms by early 2010 (Lelo Website, Lelo Femme and Homme Collection, 2011),
showing there is a consumer base globally of men and women who want a higher-
quality, non-pornographic, highly stylised product than the adult industry had
previously been supplying. They have made use of the fashion media and some
design media to develop a consumer base outside of adult industry networks. An
examination of their media exposure on their website shows a majority of magazines
are aimed at women with a particularly strong focus on fashion and lifestyle
magazines (Lelo Website, Reviews, 2011).

Jimmyjane was created by engineer Ethan Imboden, who had worked as an industrial
designer for a broad range of product design companies, such as Nike, Motorola and
Herman Miller, and smaller leading-edge consultancies like frogdesign (Portigal,
2009). Imboden started his own consultancy and perceived the gap in the market
place for higher-quality sex toys after attending an adult industry show ‘and saw bad
design everywhere’ (Portigal, 2009). Imboden put his experience as an industrial
designer to creating product ranges that the Jimmyjane website states as ‘Combining
sophisticated product development with proprietary technology, our Premier and
Wellbeing collections encourage connection and excitement without compromising
style, wellbeing or personal values’ (Jimmyjane Website, Company Background,
Paragraph 1, 2011). Examples of Jimmyjane products are shown in Figure 6.11.

Part of the first range of products onto the market, the Little Chroma series, anodised
aluminum vibrators, have been decorated or ornamented with a range of designs
using graphic artist Jamie Hewlett (Jimmyjane Website, Ultimate Member, 2011).
This is a similar approach to the Goldfrau products, increasing product brand value
with collaboration with graphic artists and creating highly decorative products that
distinctly differentiate themselves not just in the sex toy market place but the within
in the product design field as well.
A technological innovation that Imboden developed for the Little Chroma vibrators was replaceable motors (Jimmyjane Website, Replacement Motor, 2011). Mainstream vibrators are notorious for poor quality components and generally it is the motors that wear out first. Imboden created a motor mechanism that is as easily replaceable as a battery and replacements can be ordered off the company’s website. Their promotional material states they have received numerous design awards (AIGA, ID, and IDEA) for their graphic and product design as ‘a direct result of the company's exacting design, engineering and manufacturing quality standards’ (Jimmyjane Website, Company Background, Paragraph 4, 2011) again showing that, like FunFactory that good sex toy product and communication design is able to be recognised by design industry awards. Jimmyjane is orientated towards promoting their brand as fashion/lifestyle brand—what they call sexual lifestyles but they have strong engineering and design principles and a transparent level of information and disclosure about their products as evidenced on their website material discussed above.

Both Lelo and Jimmyjane have marketed and branded themselves as sex toy design brands, differentiating themselves away from both a health and wellbeing brand and traditional adult industry companies. While both companies promote high-quality manufacturing and standards, environmental design and manufacturing considerations as disclosed on their company websites; they utilise the aesthetic possibilities of form, material and styling to create core product ranges that could be considered fashion or design accessories. Both brands self-consciously promote towards a fashion or design conscious consumer with Lelo describing their target market as ‘discerning, design-conscious, and dedicated’ (Lelo Website, About Us, Paragraph 4, 2011) and Jimmyjane describing themselves as a ‘design-centric brand’ (Jimmyjane Website, Meet Jimmyjane, Paragraph 1, 2011).
Both companies have been successful in promoting their products into fashion and design magazines across Europe and the United States. The Jimmyjane series Little Chroma is designed to be worn around the neck like a fashion accessory, and the Jimmyjane website states it is a favourite of model Kate Moss (Jimmyjane Website, Little Gold Vibrator, 2011). This may be unsubstantiated promotion but it is an indication that both Jimmyjane and Lelo products are able to cross over into design and fashion networks outside of the adult industry— they can be marketed as being fashion accessories rather than pornography. This is helpful to these companies wanting to market outside of traditional adult industry networks. It is not an indication that these products are somehow ‘better’ than adult industry products—rather that they offer consumer choice in aesthetics and expand the ways consumers can access knowledge of them. Figure 6.12 is a screenshot of some of Jimmyjane’s media coverage. It shows a cross section of fashion, design, health, business and popular press magazines.

The reviews of the above companies show product development and company branding fitting into three categories—that of health and wellbeing (Phillips, We-Vibe, Candida Royalle), female sexual health (Emotional Bliss) and design and fashion (Lelo, Jimmyjane, FunFactory). The shift in styling away from adult industry symbols and conventions has allowed these products to be more easily promoted within media and networks outside of the adult industry, and enabled an increasing acceptance of sex toys as a legitimate product genre both within the product design field and mainstream commerce. This is evidenced in the acceptance of these products and brands winning design awards such as Jimmyjane and FunFactory, the commercialisation of these products through organisations such as Boots Chemists, Wal-Mart and Amazon UK and the promotion of products and retailers into broadsheet, fashion and design media (Barnes; 2004; Comella, 2008a; Eaton, 2008).
This is not purely a styling make-over. These companies have followed a user-focused design process that puts the needs and desires physically, psychologically and emotionally of the target consumer group at the centre of conceptual design process. These companies have identified the contemporary consumer as concerned about material safety, manufacturing standards, functional attributes, non pornographic aesthetics and branding and an ability to purchase products outside the traditional adult industry retailers. They are transparent and highly detailed in cases such as Philips or WeVibe about the process they have followed and the resulting product outcomes.

As discussed in Chapter 5, I argued there are four main outcomes for using an industrial design process to develop sex toys that puts an understanding of contemporary female sexuality at the core of the user-centred considerations. They are:

- The development of aesthetics involving distinctly non-pornographic styling.
- Application of principles of quality manufacturing and material standards.
- Transparent and detailed product disclosure.
- A design process that puts the target consumer group, whether female, male or couples, at the centre of the conceptual design process.

The Goldfrau research design project outlined in Chapter 5 is one example of the type of outcomes generated from using an industrial design process to develop sex toys for different demographics and psychographics of contemporary female consumers. The above documentation of product and branding outcomes from companies such as Philips, WeVibe, Lelo, Jimmyjane, Emotional Bliss, FunFactory and Candida Royalle are examples of other outcomes that have the above points as commonalities. Why this is important to answering the research question of how sex toy production may go from taboo to socially and commercially mainstream, is that firstly, Goldfrau
outcomes can be seen as part of a commercial and design trend, not an isolated case. The documentation in this section has shown that other companies using industrial design process has developed a market for sex toys (as discussed by Comella, 2008a and Hewson & Pearce, 2011) that move away from historical symbols and conventions of pornography and the adult industry.

Secondly, I argue that it is central to the research question that developing sex toys for contemporary female consumers through a user-centred industrial design process and method will result in product and brand differentiation away from traditional adult industry symbols and conventions and that these outcomes will be able to be marketed outside adult industry networks. The examples in this section have evidenced this as products and brands that are designed and branded as sexual health and well-being products, or sexual lifestyle and designer products, are able to be marketed into broadsheet, business, health, fashion and design media as discussed in the examples above. In terms of retail, the products from these new generation companies are able to move out of adult industry networks and cross over into the trade and retail environments of lingerie shows and retailers, department stores such as Selfridges, big-box stores such as Wal-Mart, on-line environments such as Amazon UK and chemist chains such as Boots and Superdrug (Barnes; 2004; Comella, 2008a; Eaton, 2008). In the next section I discuss another type of retail environment that has mirrored the growth and contributed to the development of the market for female-centric sex toys has been the growth of the female-centric sex store that will be discussed below.

**Retailers: The Growth of Female-centric Retail Environments**

There are 2 commercial trends in sex toy commodification emerging across the last decade that mirrors each other. The first is the increase in number of sex toy producers creating products and brands that differ from adult industry themes and conventions as discussed in the first half of this chapter, and the second is the growth
of the female-centric retailer. Both of these, I argue, are a result of companies from outside traditional adult industry networks identifying new opportunities promoting products and services to female consumers. As discussed in the first half of this chapter, in regards to new generation sex toy producers, the commonality to this group was the application of industrial design experience and understanding. The retailers I will discuss in this section are the next generation of female-centric sex stores that follow the model discussed in Chapter 4 created out of the 1970s pro-sex feminist movement.

The growth of the female-centric retail market has happened concurrently with the development of the industrial design influenced sex toy market across the 2000s and I suggest they are inter-linked. This is important to the research question in that these retailers represent the other end of the sex toy supply chain and trends within production towards female-centric products are now also observable in these retail trends. What becomes evident is that the mainstreaming of sex toys away from traditional adult industry symbols and conventions is not just a case of designing female-centric products—these products I argue are suited to a corresponding female-centric retail environment. This section will document the increase in the number of these female-centric retail environments in the later half of the 2000s, discuss the attributes of these retailers, why they are successful in servicing the female market, the potential for growth, and why these retailer attributes move away from traditional adult industry symbols and conventions towards contemporary mainstream branding and marketing.

Since the research design project involved launching a female-centric sex toy brand into the global market, my experiences with retailers has formed an initial understanding of the direction of the retail market. In this section I will describe some of my own experiences as a background to the evolving market from the perspective of a female-centric sex toy producer. Like the design project this is just one
experience or example and a subjective one. What I have done is then review relevant
literature to see if my experiences matched broader commercial trends. I have also
analysed the services provided by thirty two on-line retailers and then discussed the
findings in the context of marketing literature about female consumer behaviour, and
corroborated with findings using Hewson & Pearce (2009).

Hewson & Pearce (2009) is a market research report on the potential for growth in the
UK for sexual commodities for contemporary female consumers. It identifies the
decline of the traditional male-orientated adult industry market and the increase in
opportunity in developing sexual goods and services that target the female consumer
in ways that address their needs and desires. Hewson & Pearce (2009) method is the
surveying of female consumers, both regular consumers to female-centric sex stores,
that the report labels WOSS (Women only Sex Shops) and a random sample of
female participants gathered from bars, cafes, parks and railway stations. The survey
sample is 300 respondents. The survey asks a range of interviewees about what types
of retail environments they would like to buy sex commodities in, what types of sex
commodities they already consume and what attributes they think are important in the
products and services both potentially available and already available.

The report focuses on the UK market, and has some nuances particular to that, but the
trends the report is identifying is consistent with in my broader analysis (discussed
later in the chapter) of female-centric web retailing examples from the UK, Europe,
Canada, the United States, Australia and China, and my own experiences developing
wholesale into this new growth market. There is has been a shift in both style and
quality of products and retail environments towards more appropriate goods and
services for contemporary female consumers. There is a growth in the market, a
gradual but distinct diversification of retail outlets away from traditional adult
industry models and potential for growth in the near future.
As discussed in detail in Chapter 4, the female-centric sex store retailer grew from the model created in the late 1970s and early 1980s by American pro-sex feminist retailers Good Vibrations, ToyBox, Babeland and Grand Opening (Anderson, 2006; Loe, 1999). These were the first female orientated sex toy retailers to provide an environment to women that was well-lit, non-sleazy, safe and focused on giving their customers sex education. These stores were the also the first retailers to discuss issues of material safety and product standards around toxins in product plastics. These stores were important in creating a new retail model outside the networks of the adult industry. The female-centric sex shop remained small in number globally throughout the 1980s and 90s but have increased in number since 2000 across the western world (Gasper, personal communication, January 20, 2011; Hewson & Pearce, 2011; Plantenga, personal communication, January 15, 2011; Taormino, 2004).

The following is a brief description of my experiences as a producer attempting to wholesale into the sex toy market a product that was designed to be distinct from standard adult industry product in terms of aesthetic, materials, quality and price. Even though the product was launched in 2006, I was looking at potential retailers since 2004 and had been observing the market since the early 2000s. Before 2000, a small amount of female-centric sex shops existed across the Western world, the original feminist or sex-positive stores, such as Good Vibrations in San Francisco, Grand Opening in Boston and Babeland in Seattle. Laura Meritt was selling products out of her home salon in Berlin, Sh! had been operating in London for a few years and Bliss was open in Melbourne, Australia.

By 2004, when I travelled to Europe, Coco de Mer and Myla had opened in London but most major cities across Europe lacked a bricks-and-mortar female-run sex shop. By 2006–07 that number was increasing steadily and by 2009 there had been a dramatic increase of bricks-and-mortar and online sex stores that were marketed towards female consumers specifically, in ways that were distinctive to the traditional
adult industry stores or online stores. For example in space of 5 years a city such as Paris, which I visited in 2008 for the Paris Lingerie Fair, has gone from having no female-centric sex stores to five bricks-and-mortar stores, plus party plan, plus lingerie shops that sell sex toys, plus France’s most famous female fashion design company Sonia Rykiel including lingerie and a small range of sex toys in the brands new flag ship store in St Germain des Pres. The Paris Lingerie Fair is now an opportunity for high end producers to meet potential retailers that is either an alternative or addition to adult industry trade show such as Berlin Venus.

Jelle Plantenge of J Su Misura (2011) confirms that his database of retailers collated from the time he was an agent for high end sex toys (2004-2009) contained approximately 200 female-centric sex stores. He suggests the growth in the market is attributable to a focusing on the creation and style of the store brands, not just what products were being sold, but creating sex stores that promoted a whole experience or sexual lifestyle. Plantenga states (Plantenga, personal communication, January 15, 2011):

This movement results in a growth of better looking sex stores which do not aim to sell just sex products any more but a whole experience. They present something which is changing the way people look at sex toy stores, a nice and sophisticated look. This movement is for sure a result of the trend of brands in this market. At the moment it is not only the female centric sex stores anymore but there are many couple centric ones now as well.

He states in his correspondence that the female-centric sex store model now runs to about 1000 stores globally and there are an equally sizable number of stores focusing on the couple’s market—although these two markets cross over. These stores are not the hybrid model of the adult industry discussed in Chapter 3 but aligned to the female-centric model by moving away from traditional adult industry themes and
products. In the case of Edenfantasy that will be discussed later in the chapter, the female-centric model and the new couple’s stores are sometimes indistinguishable. Plantenga states the market for both is still growing.

The dramatic increase in the number of female-centric sex stores in the last five years is also confirmed by Dan Gasper from high-end sex toy producers Je Joue. Gasper states (Gasper, personal communication, January 20, 2011):

Je Joue work with approx 200 brick and mortar, sex positive retailers, across 22 countries – I would say 20% are over 10+ years old (the earliest ones started around 1972 – GV in SF, Lovecraft in Toronto and Eve’s Garden in NYC), 30% are 5+ years old and 50% have opened in the past 5 years (although some of these like Sh!, are a second store, rather than a new independent retailer).

Kent & Brown (2006), in their marketing article on the history and attributes of Erotic retailing in the UK between 1963 to 2003 state that the opening of Sh! in Hoxton, London in 1992 was the first female-centric erotic retailer to enter the British market; which till that date had been serviced by standard male-centric adult industry book stores or the Anne Summers chain of lingerie stores and home party plan. It is documented in Storr’s sociological text on Anne Summers’ party plan business (Storr, 2003) that even though females are the main target market for Anne Summers party plan and stores, they are aimed specifically at lower socioeconomic groups. The point to make here is not of class or distinctions of class taste, but rather that Anne Summers was selling the same types of sex toy product that proliferated globally from the mainstream adult industry producers.

The introduction of Coco de Mer in 2001 and Myla in London in 2002 had positive affect on sex toy retailing. While both of these stores represented a shift stylistically away from Anne Summers and the adult industry norms, it was the publicity both
enterprises have been able to generate that has brought female-centric retailing into the media. Myla leveraged off the famous names of its sex toy designers, Dixon and Newsome (*Design Week*, 2001; *Dowdy*, 2005; Ferla, 2004; *Times*, 2002; *Toronto Star*, 2004; Wicoff, 2004) and Coco de Mer used the relationship of founder Sam Roddick’s mother, Anita Roddick, Body Shop entrepreneur. This is not to suggest Coco de Mer is not worthy of media attention itself, as it represents a benchmark in high-quality erotic retailing and created a type of upmarket retail environment that had not previously existed.

In the literature there is a small number of cultural studies articles (Attwood, 2005; Heinecken, 2007; Smith, 2007) that are starting to document and discuss the same trends in this thesis. That is, sex toy consumption is changing away from adult industry norms. These articles position this change within broader socio-cultural changes to female sexuality and sexual commodities, which I also attempt to do in Chapter 7, and while the analysis is insightful it stays within the frameworks of cultural studies theory (Attwood, 2005; Curtis, 2004; McCaughey & French, 2001; Heinecken, 2007; Juffer, 1998; Smith, 2007). There is a focus on branding creating class distinctions and reinforcing what the authors state are stereotypical constructions of female sexuality and gender. I argue that is new generation of female-centric stores be seen within a broader context, rather than isolating individual stores, particularly high-end ones, and deconstructing the aesthetics to create arguments of class distinction and elitism (Heinecken, 2007; Smith, 2007).

Companies like Myla and Coco de Mer have specifically positioned themselves at the luxury end of the market when developing their brands, and in the UK this was to differentiate themselves from the chain stores of Anne Summers, which had been targeting the lower end of the lingerie and sex toy market for decades. There was no alternative for consumers besides male-centric bookstores until Sh! entered the market in 1992 (Kent & Brown, 2006) and then another ten years before Myla and
Coco de Mer. Myla and Coco de Mer could be labeled as elitist, providing designer products only a few can afford. The ability for these high-end retailers to gain mainstream media exposure, whether it is in the fashion, design or broadsheet media, helps to decrease the taboo nature of consuming sex toys and encourage other retailers and producers to enter the market creating further innovation and competition. The range of retailers that have entered the market, I would argue they have provided variation and difference as evidenced in Figures 6.13 and 6.14 which will be discussed in detail later in the chapter. From an analysis of female-centric stores later in this chapter, the female-centric sex store model greatly varies in the target demographics and psychographics stores are attempting to attract. There is much more variation in the market that the literature of Heinecken (2007) and Smith (2007) addresses.

In my experience from needing to wholesale a product and brand that was unlike the normal adult industry product, female-centric stores became a vital alternative distribution and retail network to the existing adult industry networks. In the case of my own brand, which is the focus of the thesis design project, Good Vibrations in 2006 was the first retailer to sell and promote Goldfrau products in the United States. They were establishing and expanding the luxury or high-end segment of their range at the time and specifically promoted the products as being produced by a female designer. This exposure led to opportunities in other parts of the world in particular Europe and helped kick-start an awareness about the brand. They promoted the aspects of my brand that represented quality, material safety, and innovation, even though the product was relatively high cost. They saw growth in the high end of the market and the value high end products give to their brand in establishing differentiation from adult industry norms and promoting their brand to female consumers.
Alternative distribution, retail outlets and product design companies are important for the development of each other, I argue, as retailers are able to set up stores knowing that a range of non adult industry products now exist. Potential producers see a new market developing in a lucrative industry that is being legitimised by quality products, spaces and branding that have moved distinctively away from the symbols and conventions of the adult industry. Kent & Brown (2006, p. 205) corroborate this in their article focusing on the changes to erotic retailing in the UK. They use the marketing methodology of the four Ps, which are product, price, place and promotion. They state that changes to the UK market towards a new model of erotic retailing to women have been helped by changes in the product design of sex toys away from ‘the parody of the dismembered male organ’ (2006, p. 205). They state the changes in product design towards less literal products and higher-quality materials have broadened the market for sex toys along with changes to retail design signal significant shifts to the erotic retailing sector for female consumers by companies like Myla and Coco de Mer entering the market in the early 2000s. The report goes up to 2003 and an updated analysis of the UK market is discussed in Hewson & Pearce (2009) below. It shows that the market for erotic goods and services aimed at females in non-traditional adult industry ways has grown since 2003 and has the potential to be worth 1 billion pounds in the UK market and globally 20 billion pounds by 2018 (Hewson & Pearce, 2009, p. 4) up from 250 million pounds currently (Hewson & Pearce, 2009, p.11).


Hewson & Pearce (2009) describes the market for sexual commodities in the UK as the erotic market which it divides into three clear cut-sectors: men buying for themselves; men buying for women for joint use; and women buying for themselves or for joint use. The first two sectors have been the traditional mainstays of the adult industry, and the report states this sector of the adult industry is in rapid decline

Hewson & Pearce (2009) identifies the female consumer segment as having been serviced by a combination of retail environments such as traditional adult industry stores and on-line stores like the Anne Summers retail chain, which targets lower socio-economic groups with the usual adult industry product (Storr, 2003), the newer female centric retailers it calls Women Only Sex Shops (WOSS) as well as some chemists, supermarkets and department stores concessions (Hewson & Pearce, 2009). Hewson & Pearce (2009) focuses on the potential for the female consumer segment to grow rapidly by building on the models of the female-centric sex stores discussed above, moving increasingly away from traditional adult industry norms of retail and product branding to the types of aspirational marketing used by luxury perfume and fashion companies.

Hewson & Pearce (2009) is consistent with the analysis of this thesis that the huge socio-cultural and technological changes in the last decades, that will be discussed in further detail in Chapter 7, as having not translated into the adult industry providing appropriately targeted product or retail environments for contemporary female consumers. That this has created potential in the market sector for females for new retailing and product models, and that this is starting to be addressed by companies from outside the adult industry who have identified the potential. Hewson & Pearce (2009, p. 15) states:

The last two or three years have, in our view seen a significant change that heralds a shift from a pornography rooted industry to an aspirational and respectable product based one. High quality goods from companies such as Lelo, Jimmyjane and Myla have changed perceptions (albeit at an expensive and boutique level). Retailers such as Coco de Mer have shown flair and big name stores
such as Selfridges have trialed concessions and sell beautifully presented toys. Asda have recently begun the placement of inexpensive vibrators on healthcare shelves. Perhaps of equal significance in principle was the market entry of the Phillips Massager—a major brand from another sector together with discreet promotion—probably over discreet of the product in quality magazines such as GQ.

The Hewson & Pearce (2009) survey asked the participants what kind of retail environments they would like to see and what kind of retail environments they have encountered. In regards to retail environments, key findings of the surveys revealed a majority of respondents would prefer a bricks-and-mortar store to an online environment and that those women who were already WOSS customers had had enjoyable experiences (85%) at those venues suggesting that the model works well for those female consumers (2009, p. 25). When asked what ideal venue the respondents would like to shop in for erotic goods, 78% (2009, p. 29) wanted a High Street venue that supplied a wide range of goods, not just sex toys but accessories, lingerie, erotic literature and DVDs. The report states the acceptance of a venue in a High Street location meant that the respondents were relaxed and unembarrassed about shopping for such goods and that a level of social acceptance had occurred. The respondents were open to cross-overs into the fashion, hotel and spa industries, but less accepting of venues such as hairdressers or supermarkets.

The report indicated that 61-96% (61% of the Street survey group and 96% of the WOSS survey group) (2009, p. 34) of respondents reacted to the thought of shopping for sex toys with feelings of arousal and this reflected the type of appropriate or desired venue for buying erotic goods—hence the lack of acceptance for buying goods in supermarkets. While the report indicated increasing social acceptance of buying a sex toy perhaps buying one in a supermarket was a step too far—or too un-erotic. The biggest response from respondents to the ideal venue was the concept of
an Aladdin’s Cave, which was very similar to the WOSS models already available. Respondents referred to issues of non-sleazy or tacky, quality goods but not just expensive ones, a wide range of goods and accessories and helpful, friendly staff with sexual health knowledge.

With regards to the attributes respondents wished to see in sex toys by far the overall number one attribute was a well functioning product. Packaging was of secondary importance but there was a clear preference for non pornographic styling. The survey results suggested 60% of women in the UK between the ages of 18-65 have at least one sex toy (Hewson & Pearce, 2009, p. 32). However between the respondents surveyed in the WOSS venues and those randomly on the street, the street respondents were far less likely to have extensive collections of sex toys and accessories or have bought recently. Hewson & Pearce (2009, p. 32) states:

> What was very clear was the fact that within the street survey only a few women—about 4%—had extensive erotica collections (loosely defined as costing more than £100)—and perhaps only four or five women had spent more than £200. Around 15% had two or more sex toys. In the WOSS Group this situation was completely inverted with 55% of the respondents having erotica collections costing £200-£400 in the last two years...

It is unclear whether WOSS style venues are successful in keeping customers and increasing the chance of repeat purchases or WOSS customers were those that were more likely to seek out such venues because of a high interest in erotic goods. However, Hewson & Pearce (2009) states that there is potential unrealised within the UK market for the female consumer sector with the growth coming from the WOSS style model or new version built on the aspirational marketing used by industries such as perfume and fashion. As discussed above the report predicts the female consumer sector for erotic goods in the UK alone to grow from 250 million pounds currently
per annum to 1 billion pounds per annum in ten years (Hewson & Pearce, 2009, p.11).

The above section documents the growth of the female-centric sex store retailer in the 2000s concurrently with the development of the female-centric sex toy producer. This is important to the research question as the growth of the female-centric retailer shows the decrease in sex toy commodification as a taboo activity through the growth in female-centric retail sales and stores (Hewson & Pearce, 2009; Kent & Brown, 2006). However, this is I argue because both female centric production and design are moving away from historical adult industry models towards design, brand and marketing that appeal to a contemporary female consumer, which is key to moving the sex toy market from a taboo to socially and commercially mainstream activity. The section below discusses in detail the attributes of female-centric retailers that create that differentiation away from traditional adult industry models which further addresses the research question.

**Attributes of the Female-centric Sex Store Retailer**

In this section I examine 32 on-line sites from a range of countries, to show the trend is not just confined to one market such as the UK, but a broader trend across western style economies. Using marketing literature on how to market goods and services to female consumers, as a basis for defining why these businesses are developing and why they are successful, I discuss the attributes of these female-centric stores and how they differ from traditional adult industry providers.

The companies I have chosen range from on-line retailers such as Eden Fantasy, to the on-line sites of bricks-and-mortar stores such as Coco de Mer and Myla, to the on-line stores of sex toy producers where consumers can buy product direct, to smaller lingerie outlets that sell sex toys and accessories as side-lines to lingerie. Figures 6.12 and 6.13 show that there is a now a broad range of aesthetics and target
markets catered for in attracting female consumers. What makes a retail environment female-centric is more than just an aesthetic that purposely moves away from a pornography style. The site must provide a range of services for the female consumer that I will discuss in this section.

I have reviewed a range of literature around current trends in marketing to female consumers or their discretionary consumption behaviour (Brown & Orsborn, 2006; Cunningham and Roberts, 2007; Economist, 2009; Gobe, 2001; Hanson, 2009; Mack & Miley, 2009; Moran, 2006; Quinlan, 2003; Richman, 2008; Skoloda, 2009; Stevens, 2008, Tracey & Achterhof, 2007; Whylly, 2009). From the literature I have noted a range of themes that keep appearing in relation to what female consumers want in products and services and I will use these to discuss why these new products and services are appealing to female consumers in ways the traditional adult industry products and services are not. The main themes from the literature are:

- Women are time poor—but they want information.
- They use word of mouth and social networking—including blogs.
- They control 80% of household purchasing.
- If an industry does not supply the product or service they want they will go somewhere else—or create it themselves.
- Marketing to women is more than just making it pink.
- Men and women are different in the ways they shop, react, judge and feel.
- Women are not one big homogenous group—niche marketing is essential.
- Women like companies that support causes, charities or the environment.

I argue that these characteristics can be grouped into two areas. One is the style or aesthetic of the site that is created through branding identity, and the other is the way
the site functions, the information provided particularly about product ranges and the sense of community is created. The aesthetic of the site attracts the consumer based on their own lifestyle or aspirations. At the same time, the information or product provided by the site is important to fulfilling the consumer’s needs in terms of being able to access enough information to feel confident about purchasing a product. Social networking or the ability to contribute product reviews creates a sense of community.

I have analysed 32 online sites from Europe, Australia, United States and one from Shanghai, China. They are:

Magnolias- Austria

Blacklabel, Bliss for Women, Honeybirdette, Mia Muse, Passionfruit- Australia

Evaluna- Belgium

Art of Loving- Canada

Bloomnine- Shanghai, China

Passage du Desir, Second Sexe-France

FemmeFatale, Frauenfreude, Laura Meritt’s Sexclusivitaten – Germany

Angelique Devil, Zou Zou – Italy

Ooups, Lelo – Sweden

Aphrodite, Babes-n-horney, Coco de Mer, Lascivious, Myla, SugarGloss, Sh!, Wicked Tickles- United Kingdom
Babeland, Eden Fantasy, Good Vibrations, Kiki De Montparnasse, Jimmyjane, Smitten Kitten- United States

All but one of these stores to my knowledge at the time of submitting this thesis is still operating. Sugagloss, from the UK has closed down and transformed into Belle Époque. These sites were viewed in January of 2010 and the images used in Figures 6.12 and 6.13 are from this period as some sites have changed graphic interfaces. URLs to these companies are provided in the reference list.

This is not a complete list of female-centric sex stores across the Western world—it is a snapshot of an emerging trend. I am interested in what makes these sites more attractive to female consumers and how I would classify them as female-centric. Each of these sites/stores is different in the range of products they sell, the amount of information available to customers, the way the sites are constructed and the style or aesthetic, which is the indicator of what type of demographic the site is trying to attract. There is a variation across the sites in aesthetic, which I will discuss, but there is a range of commonalities to these sites that I argue makes them more female-centric than traditional adult industry sites that I will discuss below.

The following is a range of criteria from the sites that I argue differentiate them from traditional adult industry sites. These can be categorised into three main sections—aesthetic, site content or information, and site community. The following list is what then defines the key attributes of these sites. Under these headings I documented examples of the following sub-headings:

**Aesthetic:**

- Type of styling (high-end design, lingerie, sexual health / friendly, ultra feminine).
• The site is not just making it pink (a superficial attempt at attracting a female consumer).

• A lack of porn styling—depictions of women as porn star/slut types.

**Site content or information - the site provides information on:**

• Product safety or materials.

• Sexual health information.

• Environmental concerns – company policy or rating of products.

• Product reviews.

• Interviews with designers or industry people.

• Events.

**Site community - social/community aspects:**

• Social networking—Face book, Twitter and so on.

• Sexual health workshops.

• Ability for consumers to comment on product.

• Presentation of staff—they promoting female staff or owners.

• Promoting a broader network of like-minded industry people or educators.

• The customer has an ability to review or interact with the site.

Figures 6.13 and 6.14 are a collection of branding snapshots to give a sense of the mood of the environments. These are predominantly the home pages of the sites and the first image or introduction to the store. As discussed in the notes on branding—the look or the emotional information of a product or environment is the first contact with the consumer—it is important in creating a connection with the consumer and
appealing to them to investigate further. What can be seen from the visual documentation is a broad range or variety of site aesthetics meaning this section of the market, if taken as a group, is providing services for a variety of female demographics. It is distinctly moving away from the conventional adult industry representations of females as pornography stars, vixens or sluts, as shown in Figures 3.3 and 3.4.

The types of stores represented vary in purpose and content. Some stores such as Myla or Lascivious are lingerie brands that sell sex toy product. Some stores such as Coco de Mer are high-end sex stores that sell quality mass-manufactured or batch/craft product. Companies such as Magnolias, Jimmyjane and Kiki De position themselves as sexy lifestyle brands, selling sex toys and a range of other accessories. American stores such as Eden Fantasy, Smitten Kitten and Babeland focus on providing a large range of sex toys with an emphasis on product information.

The aesthetics of the online stores fall loosely into three categories. First is high design values, either large areas of black or white space, high-quality photography or artwork or a clean simple style with minimal colours representing a clean and minimal high design look; second is a more obvious ultra feminine styling with the use of lingerie and third is a clean and friendly sexual health look. Each store represents a variation on the attempt to attract female consumers using a slightly different aesthetic style, product or store selections and the amount of information each store provides to customers about their products. The main key stylistic themes were high design, ultra feminine or sexual health/ friendly.

I have analysed the content and services the sites provide. I have matched this with the themes emerging from the marketing literature about what female consumers want in products and services and the information from adult industries forums into what female consumers want (Comella, 2008a). The Comella (2008a) article states
that female consumers of sex toys want quality or long lasting products, good-looking products, product information or sexual health information. The marketing literature themes that have emerged are that women want information and lots of it, they use word-of-mouth and social networking as a way of disseminating and gathering information for purchasing decisions, they like companies that support causes, charities or the environment, and they have high attention to detail. From these points I analysed the sites and found all provided a range of the following in various different degrees.

**Site content or information: the site provides information on:**

- Product safety or materials.
- Sexual health information.
- Environmental concerns – company policy or rating of products.
- Product reviews.
- Interviews with designers or industry people.
- Events.

**Site community: social/community aspect**

- Social networking – Face book and so on.
- Sexual health workshops.
- Ability for consumers to comment on product-blogs or reviews.
- Presentation of staff – promoting female staff or owners.
- Promoting a broader network of like-minded industry people or educators.

Sites like Eden Fantasy or Babeland are stylistically simple sites, using white space and minimal colours. They are the benchmarks in providing services that are
information rich and establishing online communities around their businesses. Eden Fantasy provides a system of rating tools and reviews for their product range. Products are rated on noise, strength of vibrations and material safety. They provide reviews from their own designated group of product reviewers and there is a number of mechanisms for customers to enter their own opinions. There are forums for customers to discuss aspects of products and the capacity for written or video reviews to be shown. Product Company websites I argue are to be critically examined as information about their products will always be put forward in the best possible light. A consumer will only get information off a Product Company site that has been vetted by that company. The capacity of retail feedback sites such as the one Edenfantasy provides allows for a range of user responses to the attributes of those products to be aired publically. Sex toys are difficult to buy off websites as one cannot touch them, hear them and feel them. This service provides another layer of information to judge whether the product is potentially right for the consumer. As a producer I would also add it is a way of getting feedback about what aspects of one’s product consumers like and do not like.

The Edenfantasy site has a sense of a community of like-minded people through the ability of customers to interact and provide feedback. The site also provides interviews with designers, company owners or other people within the sex toy industry—particularly women within the industry and an online sex magazine with further related stories. The structure and content of the Edenfantasy site fulfills the marketing literature main themes about attracting and capturing the female market segment. The site is easy to navigate, information rich, the consumer can access multiple points of views about products in a number of different formats such as text or video. They promote quality and safety in products by establishing a ratings system and the aesthetics of the site project a clean, open and healthy symbolism which mirrors their attitudes to the sex toy product design they retail.
In comparison an adult industry online store, such as those shown in Figures 3.3 and 3.4 will range from the bare minimum of considerations such as a superficial rebranding of the site through styling, generally using the colour purple or pink. Products may be divided into male and female categories but the sites will contain either forms of pornographic styling or display porn videos for sale on opening pages. There is little, or no product safety information, although some sites may disclose if a product is phthalate-free. There is no sense of a community and no ability for consumers to interact. The biggest problem with traditional adult industry sites is the placement of pornography DVDs on the opening or home pages. While the page may contain an advertisements for selling lingerie, below that will be a series of DVD covers with titles such as Cum Shots and Anal Gang Bangs (Figures 3.3 and 3.4). These traditional adult industry providers are having trouble reconciling their traditional customer base and a growing female demographic demanding quality and information. It will become increasingly difficult for traditional adult industry retailers to capture the growing female demographic against such competition as stores like Eden fantasy if they do not dramatically change their old models of business and retailing (Hewson & Pearce, 2009).

Gobe (2001) as early as 2001 was discussing the impact of the internet on business in regards to women both creating businesses and choosing where to shop. He states that the internet has enhanced the ability for women to develop businesses as it breaks down old models of networks (2001, p. 45),

> The internet revolution is opening more doors than ever before to women because it is an unstructured format with no “old-boy network” to be dealt with, making it easier for women to either strike out on their own or reach higher levels more quickly in companies. The internet has created an enormous demand for seasoned marketers and media experts, many of whom are women.
The increase in the number of female-centric sex stores I argue can be directly related to the ability of the internet to enable female entrepreneurs (and in the case of Edenfantasy an entrepreneur redefining sex store shopping for contemporary female consumers) into the market place by constructing their own interpretations of how women wish to be marketed to—not the adult industry’s historical template. It is an example of a main theme from the marketing literature. That is, the trend of female entrepreneurs to develop their own business models if the market is lacking. The internet has also allowed female consumers to shop anywhere in the world they can find appropriate sites. It has created the ability to network outside of the old adult industry providers, which will be discussed in further detail in the next chapter.

The discussion of the attributes of female-centric retailers addresses the research question of how the sex toy industry may go from being a taboo activity to a socially and commercially mainstream one by outlining the content and structure of female-centric retail; how it appeals to a contemporary female consumer and how it differs from traditional adult industry providers. As with the new generation female-centric sex toy producers the commonality is to put the needs, desire and aspirations of contemporary female consumers at the centre of the product or business model and not a re-working of the traditional themes of pornography with its historical taboo associations and male-centric focus.

Summary

This chapter has documented two distinct commercial trends within sex toy production and retail in the decade to 2010. These trends show an increase in product design and retail environments that are differentiating goods and services away from adult industry symbols and conventions through an interpretation of the needs and desires of contemporary female consumers, which I argue is central to answering the research question of how the sex toy industry can become a socially and commercially mainstream activity.
The examples of new production companies provided shows a shift away from traditional adult industry norms that is not just evident in the development of a non-pornographic aesthetic. There is evidence of the intent of these companies to innovate form and function, increase manufacturing quality and material safety, adhere to global best practice regarding environmental design and manufacturing legislation, provide disclosure of technical specifications, and in some cases the design and research process on company websites. The above design considerations that these production companies have chosen to privilege as important to their potential customers are reflected in Comella’s (2008a) article. That is, contemporary female consumers of sex toys want quality or long lasting products, good-looking products and product information or sexual health information.

The other trend documented in this chapter is the increase in the number of female-centric sex store retailers. I have argued that the changes in product design away from adult industry norms has increased the ability for female-centric retailers to develop services and environments that better reflect the needs of female erotic market by providing a higher quality, less pornographic product. This is evident in the marketing literature on erotic retailing in the UK (Brown and Kent, 2006; Hewson & Pearce, 2009) that states that these new generation production companies are influencing the perception of the market and contributing to growth in those retailers focused on a contemporary understanding of the female consumer not the traditional perceptions of the adult industry based around the stereotypes of porn star, slut or vixen. Sites such as Edenfantasy and Babeland reflect the marketing literature that female consumers want community orientated and information rich sites. This is again reflected in Comella’s (2008a) and Hewson & Pearce’s (2009) assessment of trends in retailing to female consumers in the erotic market. That is contemporary female consumers want product and sexual health information.
The design research project, Goldfrau and the examples discussed in this chapter outline the way for sex toy production and consumption to move from taboo to mainstream—which is central to answering the research question. Both of these trends, the development of new generation producers and the increase in the number of female-centric retailers reflect a central premise; that traditional adult industry goods and services do not adequately reflect the needs of contemporary females; and that the products and services to female consumers must be re-orientated towards a contemporary understanding of female sexuality and consumption. This re-orientation results in product and brands that decrease historical taboo associations as they move away from traditional adult industry symbols and conventions.

In the next chapter, I address the broader socio-cultural and other technological changes that have enabled this shift in sex toy production and the growth of the female sector for erotic goods and services. If the industrial design process involves a contemporary interpretation of socio-cultural and technological trends as a basis for product or market innovation (Best, 2010) what are the circumstances designers are interpreting that allow for a dramatic shift away from traditional adult industry goods and services to new models of production and consumption. In the next chapter I address what socio-cultural or other technological changes have taken place in regards to attitudes and behaviours about female sexuality that creates a social and commercial environment for sex toys to finally become mainstream products.
Figure 6.1. Examples of design trends from new generation sex toy producers 2000-2010
Figure 6.1. Examples of design trends from new generation sex toy producers 2000-2011
Sources for Figure 6.1.


Figure 6.1.2. Miss Pink large and Miss Saigon classic, Goldfrau. Image source J.Glover. 2006.


Figure 6.1.17. Layaspot Clitoral Vibrator. Retrieved January 19, 2011 from Funfactory Website, Products, Vibes Layon, Layaspot.
http://www2.funfactory.de/#!flash=tag&value=/tags/4/products.xml&url=/product_codes/46008&.
Figure 6.2. Examples of design trends from new generation sex toy producers 2000-2010
Sources for Figure 6.2.


Figure 6.2.8. Yoo Click-n-charge Vibrator, Funfactory. Retrieved January 20, 2011 from Funfactory Website, Products, Vibes Premium, Yoo Click-n-Charge. http://www2.funkotfactory.de/#!flash=tag&value=/tags/21/products.xml&url=/product_codes/4500051&.


Figure 6.3. Examples from Candida Royalle’s sex toy brand Natural Contours
Figure 6.4. Examples from Myla’s range of sex toys, 2002
Figure 6.6. Example of Philips Massager displayed on corporate website

![Example of Philips Massager displayed on corporate website](image_url)
Figure 6.7. Examples from Funfactory’s sex toy brand

Figure 6.8. Example of We-Vibe II and technical detail.
Figure 6.9. Examples from Emotional Bliss—Sexual Health Vibrators

Figure 6.9. Sources from left to right. Isis Finger Massager. Retrieved January 19, 2011, from Collective Wellbeing Website, Sexual Wellbeing, Isis Finger massager by Emotional Bliss. 
Chandra Finger Vibrator,
Figure 6.10. Examples from Lelo’s sex toy brand.
Figure 6.11. Examples from Jimmyjane’s sex toy brand
Figure 6.12. Examples of media coverage from Jimmyjane Website—health, design, fashion, business and popular press

Figure 6.13. Examples of Web pages and branding for female-centric sex store retail environments

Figure 6.13. Sources left to right starting at top on next page
Figure 6.13- left to right, rows top to bottom

Row 1, left to right
Coco de Mer entrypage screengrab, Coco de mer Website. Retrieved December 28, 2009 from http://www.coco-de-mer.com/

Row 2, left to right
Lacivious Homepage screengrab, Lacivious Website. Retrieved December 28, 2009 from http://www.lascivious.co.uk/

Row 3, left to right

Row 4, left to right
Figure 6.14. Examples of Web pages and branding for female-centric sex store retail environments
Figure 6.14- left to right, rows top to bottom

Row 1, left to right

Row 2, left to right

Row 3, left to right

Row 4, left to right
Chapter 7

Exploration of Socio-cultural and Economic Trends for Western Females Since 1970s Explaining Conditions for Changes to Sex Toy Production and Retailing in the Decade 2000-2011

As discussed in the previous chapter there has been a growth across the first decade of the 2000s of a different type of sex toy product and sex toy retailer that moves away from adult industry standards and norms. As sex toy production has embodied a non-pornographic aesthetic, this has allowed these products to be marketed and retailed into mainstream commerce (Barnes, 2004; Comella, 2008a; Eaton, 2008). While the previous two chapters stated that that this new generation of producers and retailers were developing products and sites that altered the perception of sex toys as taboo, the technological level of this new generation of sex toy products in the first decade of the 21st century I argue, was not significantly different from the adult industry aligned manufacturing companies of the 1970s and 80s.

While the attention to issues of product quality, safety and transparent product disclosure have improved in new generation products developed through industrial design process, the types of components of vibrators, for instance, have not made potential technological leaps since the 1970s. The point of this is to say, that the types of new generation products that have come into being in the first decade of the 21st century, I argue were technologically possible back in the 1970s.

Why they came into being 40 years after the sexual revolution will be discussed in this chapter, as a combination of shifts in attitudes and behaviours around female sexuality, played out particularly within the media that interact with the new technologies and products of the Information Communication Technology (ICT) revolution and the rise of the so-called designer object. This is to identify the socio-
cultural context which has enabled this shift in sex toy production and retail to happen that had not been possible in previous decades.

In the previous two chapters I discuss the design considerations that I argue differentiate new generation products away from historical adult industry symbols and conventions, and therefore reduce the conditions which defined the product category as taboo. However, what is also key to this, is the corresponding changes in Western society since the 1970s to attitudes around female sexuality and the behaviours and beliefs of contemporary female consumers, that correspond to the design considerations embedded in new generation products. This is central to the research question of how sex toy commodification may move from a perceived taboo position to a socially and commercially mainstream activity.

**Technology and Domestic Porn**

In 1998, American academic Jane Juffer (1998) released the text *At Home with Pornography: Women, Sex and the Everyday*. It was a broad and contemporary analysis of the many ways American women could access various types of traditional and non-traditional pornography or erotica through changes in technology. The book released in 1998, at the beginning of the internet era identified the potential for new communications technologies to increase the ability for women to access sexual commodities.

Juffer (1998) positions her study in the domestic environment, as she argues it is central to the understanding of how women and pornography interact. She states that the home environment is central to women’s activities and that previously access to pornography had been limiting to women as it had been mostly available in sites outside the home. These sites, such as the traditional adult book store were specific male-centric retail environments and difficult to access. Legislators were able to restrict the sites at which adults could access pornography by citing the need to keep
them away from homes (and implicitly women and children) as detailed by Klein (2006) and Rubin (1984). Juffer (1998) argues as adult book stores, theatres and strip clubs have been gradually been moved to industrial precincts this restricted the access to pornography by women because women’s activities are more tied physically to the home in managing families. Juffer (1998) also argues the businesses themselves followed the male-centric conventions of the adult industry and discouraged an engagement by the female customer which has been a major focus of discussion in this thesis.

Juffer’s (1998) text broadens the pornography debate beyond the content analysis of adult films and magazines and pro-sex/anti-censorship versus anti-porn debates that were outlined in this thesis in chapter 2. She is critical of the narrow emphasis around questions of whether women are victims of pornography or not. She states (1998, p. 2):

In the two decades of debates around pornography since second-wave feminism raised it as a primary concern, we remain mired in a fruitless back and forth about the status of women in relation to the genre: hapless victims or transgressive agents? The question is no longer a useful one, if indeed it ever was. The effects of pornography—indeed, of even one pornographic magazine—have been given an over-determining power to shape the lives of women, children, and men. This inflationary rhetoric has kept us from considering a much more important, albeit less dramatic, set of questions: What are the material and discursive conditions in which different kinds of pornography are produced, distributed, obtained and consumed? How do the particular sites at which pornography is produced, obtained and consumed shape its meaning and uses? In their emphasis on the overwhelming power of the texts, the various players in the pornography debates have actually inhibited an understanding of many important questions surrounding sexuality,
not at least of which is most definitely what is necessary for women
to have better orgasms.

Juffer’s (1998) text widens the scope of the pornography/erotica debates by analysing different mediums, the ability for female consumers to access them through their domestic environments and who owns the distribution and content, stating (1998, p. 3):

> The subjects of this book—women’s literary erotica, masturbation discourse, adult cable programming, couples’ video porn, cyber sex, sex toys for women, lingerie catalogs, and sexual self-help books—all represent various ways sex is domesticated, brought in from the wild, so to speak, and controlled by women for their pleasures within a particular, constantly redefined space called the ‘home’.

She does include some detailed analysis of different textual material but she broadens the scope of these examples by looking at the ability of women to access a range of different types of pornography and erotica through different media, and who controls and owns the production and distribution of these examples.

Juffer’s (1998) text highlights a number of important ideas to this thesis topic which I will discuss in greater detail below. Her history of the mainstreaming of women’s literary erotica has some specific parallels to the mainstreaming of sex toys that I have outlined in Chapters 5 and 6. Her discussion of the potential of communications technology to allow women access to sex commodities in the domestic environment is central to the understanding of how a new generation of sex toy producers and retailers has been able to establish businesses that work around the traditional networks of the adult industry. This is central to the research question of how sex toy commodification may go from taboo to a mainstream commercial activity, in that both examples—Juffer’s (1998) female erotic literature and Chapter 5 and 6 detailing female-centric sex toy products and services—shows by de-centralising production,
distribution and retail away from just adult industry networks, allows for different types of products and services to appear, that I argue are female-centric. The change from taboo to mainstream is not just a question of producing new types of products, but also alternative distribution and retail networks, outside of traditional adult industry networks that match contemporary female consumer expectations.

Juffer’s (1998) text also contains a historical analysis of the feminist movement’s anti-machine rhetoric in the 1970s that she documents is disseminated through masturbation discourses in both academic and popular literature. This helps to answer why vibrators were not unanimously accepted by the feminist pro-sex movement of the 1970s, and therefore these attitudes prevented a broader social acceptance by women of their use at the time. This is one aspect I discuss in this chapter identifying the differences in attitudes and behaviours to female sexuality between the 1970s and the first decade of the 21st century, that now leads I argue to favourable social and commercial conditions for sex toy commodification to move into mainstream commerce.

**Parallels with the Growth of Women’s Erotica**

Juffer (1998) describes the history of the female orientated erotica literary market from the mid-1980s onwards that I argue has parallels with the new female-centric sex toy market described in Chapters 5 and 6. She outlines the beginnings of this genre initially developed in the United States by writers Susie Bright and Debi Sundahl starting their own magazine *on our backs* in 1984. This led to collaboration with the Good Vibrations publishing division to produce the first of what became the *Herotica* series of erotic fiction. By 1990 the *Herotica* series had been taken up by a division of *Penguin Books* and other publishers eventually began anthologies. Erotica is now mainstreamed through sales at Barnes and Noble and Borders, two of the largest United States chain book stores. The display at Borders now constitutes 400 volumes (Juffer, 1998).
In Juffer’s (1998) analysis of the women’s literary erotica market, it has managed to create a respectable commercial niche because it positions itself in contrast to pornography. She describes how the genre uses different aesthetic guises, most notably, the positioning of the literature as high brow literature, implicitly a position of the product as having quality. This is conveyed in both the physical nature of the product – the book covers, graphic design and marketing—and the content—the editors and publishers choosing works of both erotic nature and literary merit. She also states that the genre has used the historical placement of earlier authored erotica by writers such as Henry Miller, considered within the literary world to be proper literature and built on that to define female-centric erotica as literature not pornography.

Juffer (1998) example of the growth of the erotica market for women shows that sex commodities for women can be culturally and commercially legitimised through a number of factors. She outlines, firstly, women making content for women and becoming involved in the distribution of erotic literature through positions of influence as editors of anthologies or publishers developing a product more appropriate for a female audience. That is, I argue equivalent to designers applying a user-centred approach. Secondly, publishers developing an aesthetic for the books that is evident in both the physical look of the books through jacket design, but also in the content itself having high literary merit. And thirdly, the ability of these literary products to then enter mainstream commercial networks, particularly the megastores of Borders or Barnes and Noble—thus legitimising the product (as non-pornography) and giving women access to a sexual commodity with the normal framework of their lives.

The growth of new generation of female-centric sex toy retailers and producers have, I argue parallels to Juffer’s (1998) example mainstreaming of women’s erotica. While there are still few female sex toy designers, the growth of the female-centric sex toy
retailer has been driven by female entrepreneurs and businesswomen as detailed in chapter 6. In this chapter I argue that these sites are important arbiters of style, product quality and sexual information. They are successful in providing female consumers a service, which the marketing literature outlines reflects what women want in product and services. They are important in providing a new generation of sex toy producers with retail environments that more closely fit their own product values and brands.

In Chapter 6, I also discussed how these retail entrepreneurs have developed networks outside the traditional adult industry networks to deliver the type of sexual products and services they believe female consumers are more likely to respond to. I also suggest that the use of well-known designers by companies such as Myla to develop non-pornographic product is the equivalent of the use of literary merit—it is the cultural cache of high design, which will be discussed further in this chapter. As discussed above, the editors of these literary anthologies followed a user-centred approach focusing on the perceived needs and interests of their contemporary female markets not historical re-workings of the adult industry. This I argue is similar with the approach taken by the female centric producers and retailers discussed in Chapter 6.

Juffer (1998) disputes the cultural studies argument that sees the use of literary merit as pandering to conservative values through the framing of the genre with the aesthetics of high brow. Similar criticisms are in the few cultural studies papers around changes in sex toy consumption (Attwood, 2005; Heinecken, 2007; Smith, 2007). In particular, arguments that those female-centric sex toy retailers that position themselves at the top end of the market are criticized for reinforcing class and status division between females by the above authors. In the case of women’s erotica Juffer says the genre needs to be looked at in relation to a broader commercial context. The genre might exude high brow but the texts are available within chain book stores and
the commercial popularity indicates they are more broadly consumed than by just a niche upper-class female audience. The guise of literary merit enables a legitimisation of the product and a wider commercial access by female consumers.

This is similar, I argue to the developments within sex toy production and sex toy retail. An aesthetic away from pornographic styling and in some cases a clear motivation by designers or retailers to label their products for the design literate or design savvy consumer such as companies like Lelo (Lelo Website, About Us, Paragraph 2, 2011) or Jimmyjane (Jimmyjane Website, Meet Jimmyjane, Paragraph 1, 2011), puts these products and environments into the equivalent of literary highbrow. The affect, I argue, allows the products and services to be promoted into the mainstream media, helping de-stigmatise the industry as shown in Fig 6.12.

The review of retail environments in Figures 6.12 and 6.13 shows the broad group I label female-centric retailers, which range across a variety of aesthetics. While some of these stores are positioning themselves at the upper end of the market, the commonality to this group is the use of non-pornographic styling or symbols and services that produce information rich sites around product safety, sexual health or guilt free sexual lifestyles as outlined in Chapter 6. There is a range of stores, I argue for women from a range of socioeconomic groups to access. As the legitimatisation of literary erotica has allowed women’s erotica to be commercialised through very mainstream companies, I would argue that a similar phenomenon has happened to sex toys. The move from products away from adult industry symbols and conventions has enable the commercialisation of these products through organisations such as Boots Chemists, Superdrug, Wal-Mart and Amazon UK (Barnes, 2004; Comella, 2008a; Eaton, 2008) and the promotion of products and retailers into broadsheet, fashion and design media (Design Week, 2001; Dowdy, 2005; Ferla, 2004; Times, 2002; Toronto Star, 2004; Wicoff, 2004)
Juffer’s (1998) example of the mainstreaming of female erotic literature, which I have argued is paralleled with the mainstreaming of female-centric sex toys, shows a number of conditions or actions discussed above that can take a sexual commodity for female consumers, previously produced through the networks of the adult industry and create a business, branding and design model for mainstream commercial activity.

**Technology and the Domestic Environment**

Another aspect of Juffer’s (1998) book is a discussion of the potential of ICT to allow women access to sexual commodities in the domestic environment. She states that technology such as the internet and cable TV has the potential to change the way the public can access pornography—directly into the home. She argues that the technologies of the internet and cable have been important to the potential of women to access pornographic materials in their own time on their own terms. She puts forward the suggestion that access and content are of equal importance, that is, the ability for women to access pornographic material outside of the traditional adult industry retail environments and the ability to access a variety of pornographic material that is diverse and unlike the content provided by the traditional adult industry networks.

The development of ICTs has had a number of impacts on sex toy commodification outside the ability for women to consume in the privacy of their own home. As I have discussed in Chapter 6, the commercial possibilities of the internet has also allowed for the decentralising of retail and distribution away from traditional adult industry providers through the ability of any entrepreneur to develop an online presence. This is central to the understanding of why a new generation of sex toy producers and retailers has been able to establish businesses that work around the traditional networks of the adult industry. In agreement with Juffer’s (1998) text, I argue that the ability for female consumers to be able to shop for sex toys within the confines of the
home through female-centric retail environments has diversified the market away from traditional adult industry retailers as shown and discussed in Figures 6.12 and 6.13 in Chapter 6. Juffer (1998) suggested in her text that ICT technologies had the potential to increase both the access of women to pornographic material, and the ability of women to make, distribute or find a type of content more in line with their own needs and desires. I argue the growth of both the female-centric retailer and the new generation of non-pornographic sex toy producers are now a direct example of what Juffer (1998) proposed. That is, the internet has allowed for groups of like-minded producers, distributors and consumers to be able to access each other outside traditional adult industry networks that I discussed and produced example of in Chapter 6.

The prevalence of internet business enabling technologies of the first decade of the 21st century is a key to understanding why conditions have changed to enable a diversification away from traditional adult industry providers. This I argue is central to answering the research question, in that the internet has allowed for a decentralising of producers and retailers not aligned with the adult industry to do business with each other outside of adult industry networks, marketing to mainstream media and potential consumers. My own research project, outlined in Chapter 5, which launched a brand into the global market has relied on web based technology to operate outside of traditional adult industry networks and communicate and sell directly to consumers in the privacy of their own homes. It is also essential I argue in providing information for potential retailers. It allows me to have a presence in the market place without having to attend tradeshows to meet potential retailers or even have products in stores to connect with potential consumers.
Sex Toy Machines and Feminist Masturbation Discourses of the 1970s

Writers such as Juffer (1998) and Heinecken (2007) in discussing the pro-sex feminist movement of the 1970s have lamented its inability to change the way women could consume sex toys. They still cite the traditional model of sex toy retail as the male-centric adult bookstore. Yet, this thesis has shown a shift in the design of sex toys and retail environments that attempts to put the potential female consumer at the centre of the design of products and environments that produces products and services differentiated away from historical adult industry symbols and conventions.

However this shift that is discussed in Chapters 5 and 6, I argue has happened in the last decade. In Chapter 4 I discussed the beginnings of the first female centric sex stores that developed in the United States out of the pro-sex feminist movements of the late 60s and early 70s. I have stated that the manufacturing technology of the adult industry aligned producers of the 1970s and the new industrial design influenced producers of the early 21st century is not significantly different. From a manufacturing perspective, the technological conditions existed to create these new generation products in the 1970s and 80s, yet the social conditions to support them, I argue didn’t exist. Another element of Juffer’s (1998) text discussed below helps explain this. Juffer’s (1998) analysis of the masturbation discourses created out of the feminist movement in 1970s helps to explain why there has been a time lag between the pro-sex feminist movement and the sexual revolution of that period, and the increase in sex toy use of the last decade and the change in sex toy production away from adult industry themes.

Juffer (1998) details a range of ways knowledge of the clitoris and masturbation in the 1970s became to be disseminated in society and was used to push a number of feminist political barrows in the 1960s and 70s. She states there were sexual therapy
texts like *The New Sex Therapy* by Helen Singer Kaplan that focused on couples and increased sexual fulfillment with traditional heterosexual marriages. There were texts that focused on masturbation and bodily knowledge as individual empowerment by pro-sex feminists such as Betty Dodson, who not only wrote books on masturbation such as *Sex for One: The Joy of Selfloving* but ran group sexuality workshops for women. There were quasi-researchers such as Shere Hite that reported on her own surveys of what women knew, did and felt about masturbation and the clitoris, which was picked up by hugely influential women’s magazines such as *Ms, Cosmopolitan* and *Cleo*. Juffer (1998) also documents authors such as Nancy Friday released women’s anthologies of erotica and fantasy to counter the lack of pornography specifically available for the female consumer. There were a range of radical feminist texts by writers such as Andrea Dworkin or Ann Koedt that pushed a stronger line against marriage, heterosexual sex and patriarchal society using the ideas and ideals of female self-love to suggest men weren’t exactly needed anymore. Juffer (1998) also states that the research of Masters and Johnson spawned a number of more medical or therapy-type texts focusing more on physiology than politics and there was also the hugely successful *Joy of Sex* series by Alex Comfort that took sexual knowledge to the masses and the mainstream even if, she argues, it still privileged the centrality of the penis to heterosexual sex.

Juffer (1998) states these types of texts were concerned with either the integration of more sexual knowledge into females’ everyday lives, home environments and heterosexual relationships; or with establishing a self-sufficient female sexuality around the concepts of self-love that could exist outside of heteronormative relationships that saw ‘the home as a site of the oppression of female sexual desire’ (1998, p. 79). She suggests popular magazines such as *Cosmopolitan* both encouraged women on one hand to sexually liberate themselves through articles and then reinforced common gender constructions through advertising and the portrayal of ‘conventional beauty standards’ (1998, p. 81).
In Juffer’s (1998) critique of the ways in which these texts came to instruct women about the intersections of their bodies and their sexual (and political) freedoms, she makes some interesting observations about vibrator use at the time and the masturbation discourses of the 70s. This aids, I argue an understanding of the differences between the 1970s and the first decade of the 21st century in the consumption of vibrators by female consumers through an understanding of some of the social conditions and discourses around that. She argues there was a resistance to the use of technology by women in this period as an ‘indicator of the insistence on the naturalness of female sexuality’ (1998, p. 84) that was a dominant part of the pro-sex ethos of the period. She said this is evident in many of the sex texts and that the vibrator was ‘an appliance that also promised/threatened to disrupt the insistence on female sexual pleasure as naturally achieved, through coming to know one’s own body without outside interference, including the interference of a machine’ (1998, p. 84).

Juffer (1998) documents that vibrators as explicitly sexual devices slowly started to gain some legitimacy in the late 1960s with their discussion in research by Masters and Johnson’s and the increased recommendation of use by sex therapists and sexologists. As the first of female-run sex stores were opening in the mid-1970s, non-adult industry companies such as Norelco, Oster, Clairol and Conair were marketing vibrator lines as health and beauty devices, ‘hinting at their sexual uses to varying degrees’ (1998, p. 87). She documents that by the mid-1970s women’s magazines ran articles on them, sex education texts promoted them and women could access them from both mainstream brands like Norelco under the guise of beauty device or procure one through the adult industry.

Yet Juffer (1998) says that despite increased access and availability of product and sexually related information there was still a number of issues around the consumption of vibrators by female consumers. Some of the issues she canvasses are
the contradiction of the adult industry product depicting male genitalia when women were supposed to be exploring non-patriarchal sexual conventions, the noisiness which would very much make the user aware they were using a machine, and the dichotomy between the use of a machine and the ethos of naturalness within the sexual liberation movement. She quotes influential anthropologist Margaret Mead, arguing strongly against the use of vibrators—seeing them as another way technological progress was alienating human beings from ‘what is natural’ (1998, p.89). Juffer states the ideas being disseminated focused on themes such as fears of women becoming addicted to powerful orgasms, or coming too quickly or desensitising themselves physically and mentally from too much private pleasure.

Juffer (1998) states that vibrators became seen as not just a machine but the embodiment of a technology commodifying female sexuality. She says pornography was seen to be the commodification of sex, and weren’t women trying to construct a different type of sexuality? She states (1998, p. 89):

> Although the question was not always phrased explicitly, lurking beneath the vibrator anxiety was the issue of too much accessibility: should something that was so readily available, even in your neighbourhood drug store, be used to define women’s pleasure, especially when women were trying to distinguish their desires from the growing pornography industry? Would the progressive endorsement of vibrators by some feminists and sexologists interested in enhancing female pleasure get lost in the corporate rush to pad profit margins? Did the commodification of the vibrator as a sex toy indicate the commodification of the body, with sexual pleasure just another item in the profit margins?

As Juffer (1998) documents there was a number of mainstream companies that made vibrators in the 1970s, such as Norelco, Oster, Clairol, and Conair, who promoted them as general wellbeing devices and labeled them as massagers. These companies
still relied upon the social camouflage of the health and beauty device, as discussed in Chapter 4, reluctant to promote them as explicit sexual devices. She states ‘Corporations could enter the vibrator market confident that they would profit on the sexual uses without having to openly advertise them because this information was being disseminated elsewhere ...’ (1998, p. 91). However, Juffer (1998) states that even magazines such as Redbook and Ms. refused to run advertisements for massagers if the advertisement alluded too much to its potential sexual uses.

Juffer’s (1998) writing on the status of vibrators in the 1970s helps answer some critical questions about the differences between the 1970s and the first decade of the 21st century. She argues major impediments to the more widespread use of vibrators were a rejection of technology and the perception of commodifying sexual practices in favour of the naturalness of female sexuality, alongside a rejection or suspicion of the product as part of the pornography industry. At the same time, Juffer (1998) documents that socio-cultural attitudes still did not allow for the non-adult industry companies to honestly and openly to produce and promote a different type of product and these companies I argue eventually ceded the market to the adult industry and disappeared.

The two discourses that Juffer (1998) picks up on—the anti-machine and anti-pornography discourses, which she argues influenced women being uncomfortable about consuming sex toys—has been derailed or distorted, particularly in the case of pornography by the first decade of the 21st century through the rise of raunch culture, which I will discuss in further detail later in the chapter. Raunch culture has flipped the sexual liberation discourses of the 1970s on their heads and women are increasing users of pornography and in some cases young women see it as symbol of their sexual liberation (Levy, 2005).
Juffer (1998) also discusses of the use of vibrators as a kind of human-machine melding resulting in a cyborg creation and academics should continue to debate this as technology is only going to further embed into our work and social lives and increasingly our bodies themselves. However, the distrust of human interaction with machines or technology is I argue largely a relic of the past and will be discussed in further detail later in the chapter. The 21st century consumer has long moved on from any kind of self-reflection about the ethics of technology in one’s life. Consumers have become comfortable with devices and gadgets; they are now status symbols (this will be discussed in greater detail further in the chapter). The use of a non-pornographic sex toy I argue to the modern consumer, especially a younger consumer, is just another gadget in a range of gadgets, albeit one with some specific less public functions.

These two themes, contemporary attitudes to pornography through the rise of raunch culture, and the prevalence and use of personal electronic devices; alongside changes to the social and economic status of women since the 1970s become the focus of the rest of the chapter in identifying the social and economic conditions which have altered to enabled sex toy commodification to go from a perceived taboo activity to socially and commercially mainstream in the first decade of the 21st century.

**Talking about Sex in the New Millennium: Raunch Culture, Pornification and Porn Chic**

Negative attitudes towards consumption of pornography by women since the 1970s appear to be changing (McKee et al, 2008; Levy, 2005). I have looked at two related phenomena: firstly, the increase in private consumption of pornography by women, and secondly, the pornification of mainstream media, as indicators of changing social attitudes towards sexual commodities by female consumers and a relaxation in soci-cultural attitudes to public displays of female sexuality.
While it is outside the scope of this thesis to fully investigate the changes to other sexual commodities such as adult films in favour of a more female-centric approach, there is evidence that women are consuming more pornography and that the market is starting to provide products with a stronger female perspective. As discussed in Chapter 3, the Porn Report (McKee et al, 2008) is a sociological survey of contemporary pornography use in Australia in the first decade of the 21st century. It has documented gradual but not dramatic changes in adult films towards female consumers that have changed in favour of either more realistic sex between men and women or a greater agency for women within the films. There is evidence that women are increasingly consuming pornography, with a jump in female consumers from 10% in 1996 to 17% in the 2008 survey (2008, pp. 26-7). McKee et al (2008) report indicates women are increasing as consumers of mainstream pornography but the adult industry is slow in developing product more aligned to female tastes (Comella, 2008a).

My research for this thesis has shown there is an increase in the number of women accessing sex toys, as discussed in the review of sexual surveys in Chapter 3, and a slow evolution towards a niche market developing to suit perceived female tastes as discussed in Chapters 5 and 6. Even though I argue these products are moving away from pornography symbols and conventions, they are still sexual commodities. In looking for socio-cultural changes to female sexuality since the 1970s, to understand why women are increasing their consumption of pornography or sex toys, this section looks at what is now commonly called raunch culture (Levy, 2005).

This phenomenon that is widely discussed by cultural studies authors (Bishop, 2007; Hall & Bishop, 2007; Fahy, 2007; Harvey & Robinson, 2007; Kinnick, 2007; Levy, 2005; Nikunen, 2007; Paasonen, Nikunen & Saarenmaa, 2007; Rutherford, 2007; Sarracino & Scott, 2008) is the concept of pornification or raunch culture. That is, the development in the last decade of pornography symbols and conventions crossing
over into mainstream media. In particular, Ariel Levy released in 2005 the popular culture text *Female Chauvinist Pigs – Women and the Rise of Raunch Culture*, immediately coining the term raunch culture. Levy (2005) discusses the popularity of pornography for young women in the United States and a range of ways porn has seeped out of the confines of the adult industry and into other commercial arenas, blurring a once very clear demarcation. While the use of symbols and conventions of pornography in mainstream media is not unique to the 1990s and 2000s, what is now different is the volume of use has increased substantially (Bishop, 2007; Rutherford, 2007) and the acceptance and valorisation of pornography symbols and conventions by young women (Levy, 2005; Sarracino & Scott, 2008).

Levy (2005) has documented a range of phenomena of young women increasingly being comfortable with the sexual objectification of themselves as a means to gaining attention, status, money or power. She states they are also comfortable with sexually objectifying other women, either for recreational purposes like visiting a strip club or commercial purposes like being involved with the production of a commodity, like a cable or TV program.

Furthermore Levy (2005) discusses that since the 1980s porn stars have become culturally acceptable entertainers and porn chic has become not just a uniform fashion statement for young women but a bizarre emblem of sexual liberation that was at odds with the sexual liberation discourses of the 70s. Entertainers such as Paris Hilton became role models for young women precisely because they embodied the zeitgeist of porn chic. Fahy (2007) argues that Hilton’s media image of a slut and an airhead didn’t do her brand any damage—he argues her internet sex video in fact elevated her to superstar status and it became an important part of her marketability.

Levy (2005) has pointed out that anybody suggesting public displays by young women such as flashing for the media, common in series such as *Girls Gone Wild*,
might not be so much about sexual liberation as commodification (a hyper version of sex sells)—was now considered a dour old feminist. The ability to expose one’s self publically for the sexual objectification of others was now about sexual liberation. The concept goes this way according to Levy (2005): women are now so liberated one is free to emulate prostitutes and porn stars publically if one wishes. It is hip, cool and desirable to prioritise ones sexiness above other traits or skills one might have, but Levy (2005) argues, it is a particular type of desirability and it revolves around the symbols and conventions of female porn stars and the adult industry of the late 20th century.

Academics within sociology, media and cultural studies or writers of popular culture have been documenting a range of interconnected social phenomena in the last two decades loosely around the increasing public visibility and commercial sexualisation of Western society (Bishop, 2007; Hall & Bishop, 2007; Fahy, 2007; Harvey & Robinson, 2007; Juffer, 1998; Kinnick, 2007; Levy, 2005; Nikunen, 2007; Paasonen, et al., 2007; Rutherford, 2007; Sarracino & Scott, 2008). These authors look at the conventions and symbols of pornography that move from the confines of the adult industry and the private uses of its consumers into the products and services of other industries such as popular music, television and fashion.

Issues revolve around the cross-over of pornography symbols and conventions into media, commerce and everyday life (Hall & Bishop, 2007; Juffer, 1998), the increased use of erotic or pornographic content within advertising, the increased availability of pornography through new technologies (Juffer, 1998), and the affects of these issues on public behaviour and consumption. Terms such as raunch culture, pornification and porn chic came to be coined by either academics or popular culture writers to describe the various ways the conventions and symbols of adult industry product merged with the commodification of sometimes completely unrelated artifacts such as children’s clothing (Bishop, 2007; Harvey & Robinson, 2007; Levy,
Brands such as Playboy have enjoyed a renaissance, bizarrely with young women, creating a clothing brand for women. Young women now wear the Playboy Bunny logo on T-shirts or chains around their necks without the slightest hint of irony (Levy, 2005).

There are a number of interrelated phenomena that these authors are documenting about the 1990s and first decade of the new millennium. New technologies and changes in regulation or social mores have enabled traditional pornographic content to be more easily accessed within the domestic environment via the internet or cable (Juffer, 1998). At the same time, mainstream media products (television, movies, popular music and popular music videos and advertising) have increased the erotic or pornographic content of these mediums and sexual themes, content, issues and innuendoes have become standard fare for all forms of media (Kinnick, 2007; Rutherford, 2007). Sex sells has been a standard advertising technique for the 20th century (Packard, 1962) but its use and risquéness has increased and, even though some techniques from pornography made be borrowed, it is not necessarily porn—although erotically charged (Rutherford, 2007). In the United States a particular type of fashion/lifestyle statement has risen called porn chic (Bishop, 2007; Harvey & Robinson, 2007; Sarracino & Scott, 2008). Companies are able to market to young women on the premise that it is cool to emulate the looks and lives of porn stars. This has become a fashion statement wrapped up in the guise of a lifestyle choice. It is capitalism and consumerism driving this ‘sexual liberation’ not politics (Bishop, 2007; Levy, 2005).

Rutherford (2007) documents the increasing use of erotically charged imagery within advertising throughout the 1990s and beyond. He describes television advertising across the Western world as the Theatre of the Libido where commodification meets the public’s erotic fantasies with the help of some very clever, seductive and sophisticated advertising. He states that ‘By the 1990s advertising had built theatres
of the libido where sex was used to sell a broad range of goods to people in the affluent zone of countries’ (2007, p. 91). Rutherford says this increase in the erotic charge of advertising reflected a public already experiencing the leakage of porn symbols and conventions into mainstream commercial marketing.

Yet sexual allure had been used to sell commodities for decades. Packard (1962) describes the techniques of advertising agencies of the 1950s in The Hidden Persuaders and historian Summers (2001) argued that advertising for corsetry in the late 19th century was the earliest version of sex sells techniques in advertising. Rutherford (2007) states that the medium of television changed the game, that television is a stronger, more seductive format than print because of the combined affect of movement, sound and narrative. Rutherford states (2007, p. 192):

Images could startle and excite; moving images could involve and engage; coloured images could sensualize a brand; music might promote a particular mood; words spoken or written could activate the erotic imagination. The commercial excelled at association: it could link together disparate elements, the signs of the desirable body and the name of the product, whether Levi jeans or Absolut vodka, in displays and stories that fostered a narrative of desire, sometimes one that attached an erotic charge to a brand.

The medium of the television advertisement was more highly affective and sensory than anything that had come before.

Rutherford (2007) argues that even though television had been broadcasting since the 1950s, advertisers were initially coy in their use of the erotic charge. He says that attitudes to sexuality and moral restrictions on advertising changed in the 1970s, and then gradually between the 1970s and 1990s television and brand advertising became increasingly more sexualised. He cites certain brands such as Levi Strauss and Calvin Klein initially seen to be pushing the politically
correct envelope until the erotically charged advertisement became ubiquitous across the Western world by the late 1990s. Rutherford (2007, p. 201) states:

...the advance of the erotic commercial suggests the existence of the global phenomena that underwrote and so encouraged the erotic sell everywhere in the affluent world. The craft of advertising was marked by both emulation and imitation. What worked in one place or for one brand was soon copied by rivals and others at home and elsewhere – explaining why settings, images, tunes, and the like reoccurred. More important, the advance was a response to both heightened competition and the advertising clutter in the marketplace of goods and signs: the use of sexy imagery was a way of meeting the problem of promotional noise. Finally, the erotic commercial was itself both a result and agent of the way in which sexual liberation had come to characterize the popular culture of the West.

Kinnick (2007) documents a range of examples in the United States mainstream mass media that has allowed pornographic material to merge with mainstream entertainment. From rap, hip-hop or other music videos, to video games such as Grand Auto Theft, to advertising (Paris Hilton simulating oral sex on a hamburger), to hit sexually explicit television shows such as Married with Children or Sex and the City, to cable programs such as Girls Gone Wild, to sex-laden teenage comedy or road movies aimed at a teenage boy demographic, to Oprah promoting stripping poles as exercise equipment and many more examples. She (2007, p. 10) states:

The anecdotal examples noted here are supported by empirical studies that indicate the use of overt sexual content across all forms of media has increased dramatically in recent years, including on television, video games, music and advertising. According to the longest-running systematic study of sexual content in television...
programming, the Kaiser Family Foundation’s biennial Sex on TV study, the amount of sex on television nearly doubled from 1998 to 2005, due to both an increase in the number of shows that include sexual content as well as an increase in the number of sexual scenes in those shows...

Sarracino & Scott (2008) describe the United States as a society almost under assault from the pornification of commerce. They document a similar range of socio-commercial trends among young Americans to Levy (2005) and the other sources I have cited. Sarracino & Scott (2008) describe the ubiquitous use of slut-wear and boob jobs by young women (including school-aged girls) attempting to emulate the porn star look, having grown up on a media diet of Madonna, Britney, Sex and the City, Bratz dolls, Paris Hilton, the Olsen Twins, highly sexualised music videos and countless eroticised television and print adverts. Like Levy (2005), they document the sexual openness of university-aged students in using social networking sites for displays of explicit images and texts, the obsession with body image (particular types of body images), the pursuit of hook-ups (casual sex), the valorisation of the highly sexual spring break activities made famous and promoted by cable programs such as Girls Gone Wild and growth of on-campus student porn or smut magazines. Sarracino & Scott (2008, p. 134) state:

College students, then, in significant numbers are comfortable in highly sexualized situations: posing nude, masturbating, and having partnered sex... on camera, writing erotic fantasies as well as reviews of vibrators and other sex toys, giving explicit advice on sexual techniques, and so on.

Sarracino & Scott (2008) discuss the difference between pornography and porn for a younger demographic. They state that even though porn comes from the older existing term pornography, its meaning has morphed for young consumers
and relates to a greater range of artifacts than the traditional images or texts. Sarracino & Scott (2008, pp. xv-xvi) state,

...porn is loosely, especially by those under forty, to label a great variety of material, including movies, photos, and writing, as well as anime, video games, peep shows, sex toys, and X-rated lingerie – all without the judgmental sense of ‘bad’.

Sarracino & Scott (2008) argue porn has become an aesthetic of a kind and that aesthetic is culturally hip and cool with certain demographics of young adults. Porn has become a fashion statement (slutwear) and an attitude of sexual liberation or empowerment for young women, who do not mind objectifying themselves sexually for pleasure, status or commercial gain. Porn has become a lifestyle choice and a particular attitude or aesthetic that is used to commercialise a varied range of products or services. These themes are also discussed by Levy (2005) and Harvey & Robinson (2007).

The above sources indicate that women, and young women in particular, are becoming relaxed about the use of traditional pornography and in some cases taking on the symbols and conventions of porn to display lifestyle and sexual attitudes to peer groups and the broader community. Kinnick (2007) and Sarracino & Scott (2008) see a direct link between the acceptance of porn chic and raunch culture and a generation of young women bought up in a society of highly eroticized media and celebrities.

In relation to this research it might have been easy to assume that the pornification of society has created the conditions in which a new generation of sex toy producers and retailers has been able to flourish. This was not the case, as chapters 5 and 6 documented a move away from adult industry symbols and conventions within sex toy production and retail. I argue, if porn chic were the only phenomena that were operating on the consumption of sex toys, then there would be no market for this new
generation of products. Consumers would be happy continuing to consumer the same adult industry fare.

The new generation of sex toy producers and retailers are deliberately moving away from porn chic or porn aesthetic as documented in new generation products in Chapter 5 and 6. I argue that even though the discussion of raunch culture above indicates there is a relaxation in sexual attitudes to pornography symbols and conventions since the 1970s by women, there are also other economic and commercial forces evident that will be discussed in the second half of this chapter that relate to design, branding and their relationship to increasing female wealth that help answer why the non adult industry sector of sex toy production has developed in the first decade of the 21st century.

The Female Consumer in the New Millennium: the Female Consumer and the ‘Female Economy’

To focus solely on the leakage of pornography into mass media or women’s lifestyles as discussed above suggests that it might be easy to assume that the pornification of media and commerce has created the conditions in which this new generation of sex toy producers and retailers has been able to flourish through a relaxation in attitudes to public displays of female sexuality as expressions of sex, eroticism and pornography have become ubiquitous across the media (Kinnick, 2007; Rutherford, 2007). Yet, I have discussed in chapters 5 and 6 how a new generation of producers and retailers are distinct from the symbols and conventions of pornography and constitute strong growth in the market place. Because of this differentiation (Hewson & Pearce, 2011), I looked for other influences beyond eroticisation of the media.

What this new generation of producers is using to sell products is not sex, but design and branding strategies as outlined in Chapters 5 and 6 that move away
from the symbols and conventions of pornography. A number of dovetailing phenomena has come together in the first decade of the 21st century that has created the conditions for these new producers and retailers to flourish that will be outlined in the rest of this chapter.

I will argue that along with the openness of public displays or discussions of sexuality, as discussed above in the section on raunch culture, there has also been an increase in the income and education levels of women across the Western world, resulting in discretionary spending power for middle and upper class (Miley & Mack, 2009; Silverstein & Sayre, 2009). There has also been a design and technology revolution in ICTs in the 1990s and a concurrent increase in the use of design and branding (Gibney et al, 2000) that I argue has affected consumer expectations of products and brands that will be discussed later in this chapter. There has also been a strong trend in the marketing field to understand what female consumers want as discussed in Chapter 6. This has been driven by female market researchers themselves, and their research and strategies are feeding into corporations in an attempt to capture this growing female economy (Brown & Orsborn, 2006; Cunningham & Roberts, 2007; Economist, 2009; Gobe, 2001; Hanson, 2009; Mack & Miley, 2009; Moran, 2006; Tracey & Achterhof, 2007; Quinlan, 2003; Richman, 2008; Skoloda, 2009; Stevens, 2008, Whylly, 2009). These influences, I will argue have contributed to the development of the market for industrial design influenced sex toys that has been the focus of Chapters 5 and 6 and is key to creating products and services that will take sex toy production from a taboo to mainstream commercial activity.

Miley & Mack (2009) in their paper *The New Female Consumer: The Rise of the Real Mom*, look at work/life trends of American women in the 2000s as compared to their counterparts in the 70s. In particular, the authors are interested in the differences
in conditions and attitudes between generations of baby-boomers and gen-x as women balance work, careers, education and family. The statistics reflect both material and wealth gains across four decades, finding that some entrenched inequalities still exist. American women are on the whole better educated, in greater numbers with higher levels of income since the 1970s and 80s. The report states (Miley & Mack, 2009, p. 4):

According to the most recent ‘Condition of Education’ report published by the National Center for Education Statistics, part of the U.S. Department of Education, women earned a majority of higher-education degrees in the 2006-2007 academic year: 62.2% of associate degrees, 57.4% of bachelor’s degrees, 60.6% of master’s degrees and 50.1% of doctoral degrees. They are thriving in professional programs, such as medicine and law, that historically were dominated by men. Women are also entering the work force in higher numbers than ever before, and with higher education levels, they are commanding higher salaries.

These education qualifications are translating into a growth in personal incomes with the report quoting statistics that ‘between 1990 and 2006, women’s median income grew 32.9% to $20,014, while men’s grew only 6.3% to $32,265’ (Miley & Mack, 2009, p. 4).

Entrenched inequalities still persist—the article points out that 3% of Fortune 500 Chief Executive Officers, 15.7% of Fortune 500 Chief Financial Officers, 17% of US senators and House of Representatives are female-held positions. There is still an issue of equal pay as female graduates one year into the workforce are receiving 80% of their male counterparts’ wages and that this drops to 69% after 10 years. (Miley & Mack, 2009, p. 4).
The Miley & Mack (2009) article shows a steady upward trend over 40 years in both education participation and income increases for American women. Silverstein & Sayre (2009) also demonstrate that female discretionary spending is increasing, and in demographics outside of the working career mother. Social changes since the 1970s have resulted in significant numbers of women never marrying and some women remaining single after divorce or separation later in life. The choice between stay-at-home mother or career mother was further diversified as these were not necessarily low socio-economic females either, as the review of Silverstein & Sayre (2009) article shows. The breakdown of income categories by Silverstein & Sayre (2009) as represented in Figure 7.1 suggests that middle and high income females represent 76% of 20 trillion dollars in spending annually by female consumers.

In 2009 Harvard Business Review (Silverstein & Sayre, 2009) published this research outlining what they called the global female economy. The term represented the combined buying power of women across the Western world—not just what they themselves buy but how much they influence the choices of their partners and families. Women globally have total consumer spending power bigger than China and India combined, yet the authors felt companies either ignored what women wanted or did not adequately understand it. The authors stated (Silverstein & Sayre, 2009, p. 46):

> Women now drive the world economy. Globally, they control about 20 trillion in annual consumer spending, and that figure could climb as high as $28 trillion in the next five years. Their $13 trillion in total yearly earnings could reach $18 trillion in the same period. In aggregate, women represent a growth market bigger than China and India combined—more than twice as big, in fact. Given those numbers, it would be foolish to ignore or underestimate the female consumer. And yet many companies do just that, even ones that are confident they have a winning strategy when it comes to women.
The crux of the article (Silverstein & Sayre, 2009) is three things—firstly, that women represent the biggest marketing opportunity in the world, secondly, that companies that continue to solely market their products to men or fail to truly understand their potential female consumers’ needs will be at a disadvantage, and thirdly, companies that go beyond the ‘just make it pink’ mindset will be well positioned to capture this female global market.

The article (Silverstein & Sayre, 2009) focused on the consumption behaviour and working lives of 12,000 women across 40 geographical locations with respondents answering a set of 120 questions. The report findings (Silverstein & Sayre, 2009) state the greatest potential for increasing sales and improving marketing to female customers are in six key industries: food, fitness, beauty, apparel (including shoes and accessories,) finance and health services. In the first four categories women are willing to trade up or spend more if they are marketed better. In the last two, women feel they still lack basic considerations of their needs and they feel often condescended to by companies.

The report (Silverstein & Sayre, 2009) findings divided the respondents into six key segments (see Figure 7.1) —the fast-tracker, pressure cooker, relationship focused, managing on her own, fulfilled empty nester, and making ends meet. The report (Silverstein & Sayre, 2009) states that attempts to define groups within such boundaries using marketing techniques always has its limitations as people never neatly fall into one area, or at different times of their lives move from one set of circumstances to another as job, relationship and family structures change. Women consumers fall loosely into one or more of these categories, changing categories as life progresses.

In Figure 7.1 the fast-tracker category on its own is 24% of the female population earning 34% of total female earnings. The survey summarises this category as
‘economically and educationally elite’, independent, adventurous, prizing autonomy, work and goal focused. Of this category – those who are independent—that is no marriage—no kids—make up 9% of the female population with 15% of the total income (Silverstein & Sayre, 2009, p 49).

Each of these groups I argue represents an opportunity to market to women of different demographics. For example—the fulfilled empty nester represents 15% of the female population and 16% of the income. They are older women, ‘concerned about health, ageing gracefully and focused on travel, exercise and leisure’ (Silverstein & Sayre, 2009, p. 49). The report states feel they are largely ignored by marketers and companies in a youth focused society.

Figure 7.1 represents the combined earnings of the middle to elite class as approximately 76% of all earnings across the female economy. Besides the pressure cooker category—all the others have good to high incomes or ‘ample discretionary income’ (Silverstein & Sayre, 2009, p. 49) as in the relationship category. The report summarized the following attitudes from respondents (Silverstein & Sayre, 2009, p. 48):

Women feel vastly underserved. Despite the remarkable strides in market power and social position that they have made in the century, they still appear to be undervalued in the marketplace and underestimated in the work place. They have too many demands on their time and constantly juggle conflicting priorities —work, home, and family. Few companies have responded to their needs to time-saving solutions or for products and services designed specifically for them ... Companies continue to offer them poorly conceived products and services and outdated marketing narratives that promote female stereotypes.
This quote reflects the growth of the female-centric sector of the erotic market away from traditional adult industry products and services. As outlined in Chapter 6 there is a trend towards female consumers are choosing companies that reject the outdated stereotypes used by the adult industry that represent women as porn stars or sluts. The examples reviewed in Chapter 6 show female consumers are choosing companies that provide high levels of information about products and sexual health, companies that are concerned about the quality and safety of materials and sex toy producers are developing brands around themes of sexual health and wellbeing or design and fashion accessories. Hewson & Pearce’s (2011) valuation on the growth of the female-centric erotica market represented by the examples in Chapter 5 and 6 is 7% of current market share.

That this new generation of sex toys producers are creating successful non-pornographic product says something that is distinct and opposite to the literature on pornification. While porn chic is now a well documented fashion and lifestyle trend for some female consumers, there are also other groups of female consumers who, given the choice, will consume non-pornographic, non-adult industry product (Hewson & Pearce, 2011). These products are not on the whole superficial styling examples; the companies I reviewed are examples of a holistic approach to understanding contemporary female sexuality that is embedded in the values of the product design. They are ‘not just making their products pink’, they are making serious attempts to increase the function of products through understanding the user, and that includes increasing the quality of production and product disclosure. So in an unlikely area, the sex toy industry that I argue has been dominated by poorly designed, unimaginative, male-centric products for decades, a form of female sexual empowerment has happened through consumer choice as production companies use a more realistic and varied understanding of contemporary female market segments to design products and services.
Consumers, Brand Culture and Design Culture in the 90s

In 2000, *Time* magazine ran a front page article called *The Redesigning of America* (Gibney, Luscombe, Rawe & Gribben, 2000), which documented how formerly elitist high-design consumerism had become an ubiquitous mainstream design chic by the end of the 20th century. Gibney et al (2000) labeled it the design economy and identified the growing influence of design and branding management strategies into consumer products to create product differentiation in the 1990s. The authors outlined a combination of growth in global economies, increasing salaries, easy access to credit and a new range of product technologies within personal communications that set off a boom in the use of design professionals and the use of design to develop product branding that had started in the 1980s (Julier, 2008; Moor, 2007). Gibney et al (2000) argue that using designer services, particularly well known designers, for product and branding became the key to developing an edge over the competition in the 1990s.

The article reflects the mood of the times in the following (Gibney et al, 2000, p. 1),

> Here we are, roaring into the 21st century, powered by the longest economic boom in U.S. history, wired to the Web and to one another, thirstily consuming new technology even before we know how to use it. In the frenzy of perpetual motion we want to re-create the space around us, not as our only joy but because we can, and because that way it's our space. We're snapping up translucent blueberry-tinted computers, bubbled cars and little chrome cell phones as fast as they can be produced. We're fully employed, and we want something to show for it, even if we're not Internet billionaires. So where design used to be considered vaguely precious, the province of the Sub-Zero-refrigerator-owning elite, it's now available to all—from the crowd that shops at Target to those
aesthetes who can pick out an Enzo Mari from 20 paces. If we learned anything from the barbaric old '80s, we learned that more is not enough. We want better—or at least better looking.

In the 1990s as competition between companies became slight in regards to technological capabilities, quality and costs, corporations found they could gain an advantage by creating differentiation through the design values of their products (Gobe, 2001; Julier, 2008; Moor, 2007). Moor (2007) and Julier (2008) discuss the 1990s as a period of consolidation in Western commerce of the use of branding strategy and branding consultancies to drive product and marketing innovation. Moor (2007) describes that branding strategy become important in the commercial marketplace as it sits between the corporation and the consumer, supposedly giving the corporation honest assessment of their consumers; and branding strategy brings together all the communication and production activities of a corporation into one holistic ethos. The understanding of consumer behaviour and lifestyle through branding strategy in the 90s causes a significant change in product design in this decade, as technology does not become the sole driver for product innovation (Gobe, 2001; Julier, 2008; Moor, 2007). Branding strategist, market researchers and designers now must attempt to understand the consumer and use this information as central to the design process— defining key emotional messages to the consumer about the values of the company and translating those messages into artifacts and products (Gobe, 2001; Julier, 2008; Moor, 2007).

Stand-out examples on the commercial success in the 90s of brand innovation through design (in combination with innovative technology) was the reinvention of Apple, with the candy-coloured iMacs, the retro-inspired Beetle Volkswagen (Gibney et al, 2000) and the development of Nokia into Finland’s biggest company through a strategy of mobile phones becoming personal lifestyle devices (Valtonen, 2003). Gibney et al, 2000 state the success of these companies only increased the hype and
demand in the business world for good creatives. The right designer or design strategy could turn your brand around. Industrial designers became household names: Philippe Starck, Marc Newson, Karim Rashid, Terence Conran and Tom Dixon to name a few (Gibney et al, 2000).

The high design of modernism once the domain of luxury or elite brands (Julier, 2008) morphed into more playful and colourful forms—‘form follows function’, the famous catch-cry of high design became ‘form follows emotion’ (Edwards, 1999, van Hout, 2006) as designers explained that product advantage was finding an emotional connection with the user. Gibney et al (2000) outline how well known designers continued to create upmarket ranges for producers like Alessi then diversified to low-budget product ranges for companies such as Target. Designers espoused the desire to take good design to the masses like never before. ‘Design is being democratized’ Karim Rashid is quoted as saying in the Time article (Gibney et al, 2000, p. 1). The designer look didn’t just reside in big-ticket items such as computers or cars or couches; it filtered into every household product imaginable including toilet brushes. Philippe Starck designed toothbrushes; Michael Graves designed kettles and spatulas for Target—IKEA became a household name globally, symbolising the democratising of design for the masses (Gibney et al, 2000).

Valtonen (2003) describes at the same time (mid 1980s to the present) a revolution in consumer products evolved out of the development of ICTs that had rapid growth in the 90s. An example of growth of this industry and transformation of this new technology into personal consumer devices through the use of industrial design process and methods (along with some very savvy business and marketing strategy) is found in Valtonen’s (2003) documentation of the development of Finnish company Nokia in the 1990s.
Valtonen (2003) documents the rapid growth and changes to Nokia in the space of a decade across the 1990s around the development of personal communications technologies and products. Valtonen (2003) describes how Nokia transforms from its beginnings in the late 19th century as a provider of paper, rubber and cable products to the largest mobile phone producer in the world by the late 1990s. It becomes the largest employer of designers in Finland and comparable to other multi-national electronics companies such as Sony and Philips. The company’s growth and changes reflect globally a market focused on the development of ICT into the design of smaller more personal communication devices in the 1990s. Valtonen’s (2003) Nokia example shows how product design companies in this period develop integrated branding strategies that attempt to define the potential user’s lifestyle and target specific niche markets of consumers—it was a strategy to make consumers see small electronic devices like mobile phones as fashion or lifestyle accessories rather than just business and communication technologies.

Valtonen’s (2003) documentation of Nokia’s design and marketing strategies in the 1990s shows the initial development of personal information devices as aimed at niche professional markets like business users. The devices in the early 1990s, while technically and functionally excellent, were always manufactured in the sobering colour of ‘warm black’ (2003, p. 231). She states that by the mid 1990s the use of mobile phones globally had expanded to more diverse groups, and producers were developing design strategies that ‘increased the importance of user understanding’ (2003, pp. 235-6). From the mid 90s Nokia focused incorporating ‘the use of data on users, trends, and market research’ (2003, pp. 236) into conceptual design considerations for niche markets. By the late 1990s the company focused on a strategy of the Total Product Experience. That is (2003, p. 238):

The objective of design was no longer only to produce a great product, or a family of products, but to consider the entire
This developed into Nokia’s total experience design philosophy—the goal of which was to get the consumer to emotionally commit to the brand through styling symbolism and marketing narratives delivered through the aesthetic of the product in conjunction with branding and advertising (Valtonen, 2003).

Nokia developed niche ranges of products, including small ranges of fashion-orientated designs. Valtonen’s (2003) documents designers worked from mood boards that expressed a particular target markets preference for trends in other product and fashion categories as shown in Figure 7.2. In Figure 7.3 the leap between the style and functions of personal electronic devices in the early 1990s and the mid 2000s is evident. Figure 7.3 (top image) shows the early Nokia mobile phones aimed to business demographics in the colour of warm black and Figure 7.3 (bottom image) shows the fashion orientated, deco-inspired product range by 2005.

Gobe (2001) in his marketing text on the concept of Emotional Branding discusses the change to the role of design and branding culture within the economy in this period. He states the West moved to an economy based on emotional relationships and that companies moved to designing products, services and spaces based increasingly on emotion or sensory experiences.

Gobe (2001) states a range of phenomena has happened in the last two decades that has changed design’s status and role in society and the economy. The media has raised the profile of designers both in the business world and with the general public—some becoming household names. Companies are engaging designers and placing aesthetics on equal footing with technology or production considerations because brands must now emotionally connect with consumers. The public is
increasingly affluent and consumers are, in good economic times, endlessly seeking improvement and a perceived increase in the standard of living base around consumption of goods. Design differentiation building upon perceived emotional attributes of brands is a key strategy for business.

Gobe (2001) also argues consumers expect products that reflect other aspects of their consumption behaviour. This is why I argue new generation sex toy producers such as Jimmyjane market their brand around the concept of sexual lifestyles not just sex products. It is about giving the consumer a sense of a whole experience of a brand not just a singular product. Nokia’s strategy of Total Product Experience is an early example of successfully developed this marketing concept for promoting their products in the late 1990s.

Gobe’s (2001) above comments and the Nokia example Valtonen’s (2003) outline the effort product design companies have gone to in creating emotional attachments and brand loyalty between consumers and products. Consumers are now using products embodying not only functional and technological excellence but fashion and lifestyle cues through aesthetics. The new generation products documented in Chapters 5 and 6 are, I argue reflective of this trend towards brand integration—that is industrial designers attempt to fit designs within the consumers existing set of objects, emotionally reflecting in some way their sense of lifestyle or identity, as well as projecting an individual brand identity (Moor, 2007).

This discussion on the developments in design and branding in the 1990s points to a period in the history of the consumerism where two important things happen to allow for the development of the new generation of sex toys producers and retailers documented in chapters 5 and 6 in the first decade of the 21st century, that is important to addressing the research question of how sex toy consumption may go from a socially taboo activity to a socially and commercially mainstream one.
Firstly, the growth of ICTs into personal communication devices has erased any leftovers from the 20th century about the man-machine phobias from the 1970s that Juffer (1998) discusses. Secondly, I argue, consumers expect more from their products having now been exposed to 2 decades of branding and design strategies that attempt to emotionally engage them. Consumers realise that good aesthetic design, once the territory of expensive design pieces, can now be achieved across all product design. However democratised that design now is, design chic, I argue still carries a cultural caché, which new generation sex toys designers’ use, similar to the literary highbrow of the erotic novel to differentiate their products from those of the adult industry.

The products of new generation producers discussed in Chapter 5 and 6, I argue reflect the changes to product design in the 1990s—in the use of integrated branding and design strategy that attempts to reflect the contemporary user’s lifestyle. I would argue that this is one reason why new generation sex toy designs have moved away aesthetically from pornographic symbols, as these sex toy design companies are attempting to address how sex toys would fit within a range of other consumer goods, that emotionally reflect the user’s identity or status and not a preoccupation with historical references to pornography symbols and conventions.

**Sex and the City: Mixing Raunch Culture and Designer/Brand Culture**

*Sex and the City* is an example of how the phenomena of raunch culture and the rise of designer/brand culture come together and reflect the social and economic trends of the late 1990s for women. It is cited (Bishop, 2007; Hall & Bishop, 2007, Levy, 2005; McRobbie, 2008; Sarracino & Scott, 2008) throughout the writings of academics and popular culture writers as an example of a television show that has reflected the attitudes of women at the turn of the century. For the purpose of this
thesis, it may be seen as straddling two areas I discuss in relation to socio-cultural change—the pornification of society and the rise of designer/brand culture. Not only is it an interesting mix of the two, but it has also been powerful in a reality meets fiction way of propelling sex toys into popular culture with the now famous Rabbit episode. This example that I will discuss below demonstrates the commercial power of the *Sex and the City* brand and the relaxation of attitudes around the public discussion of sex toys.

In the episode *The Turtle and the Hare* (Avril, Kolinsky & Fields, 1998) the character Charlotte discovers the sex toy type the Rabbit, becomes addicted to its use and can not leave her apartment. The other characters decide on an intervention—normally a technique to confront friends on drug addiction—to convince Charlotte to hand over the sex toy. Sales of the rabbit instantly went through the roof (Dubecki, 2007, In-Store 2004, Halliday, 2006; Jackman, 2010; Pakula, 2008; Percival, 2004). Women in their thousands went out and bought one overnight and it has become a culture phenomenon. Jackman (2010) states there are more Rabbits sold in the United Kingdom than washing machines. Pakula (2008) states the i-rabbit, the techno hybrid of the original Rabbit, has become the biggest selling vibrator in the world; in Halliday (2006), the shop assistant from Australian chain store Sexyland says that customers still come in asking for the vibrator from *Sex and the City* and it is the company’s most popular product. In Jackman’s (2010) article on the growth of upmarket sex toy retail in Australia, the author quotes an upmarket retailer stating she would prefer not to sell them but women keep asking for them because of the *Sex and the City* episode. In the *Hewson Report* (2009) it is cited as the most owned sex toy by respondents and the episode itself has a listing on Wikipedia under *Sex and the City* and there is now also a listing for the Rabbit Vibrator, referencing the episode. It took an average product at best, a relic of another era or a badly designed piece of junk at worst, depending on one’s preferences, and transformed it into a myth. The
myth was the Rabbit will give one amazing orgasms—hence Charlotte not being able to leave her room.

The Rabbit is not a brand but a type of sex toy—copied and distributed by nameless companies in various combinations of aesthetics and quality. Its main characteristics are it has a large penis like shaft that rotates inside the vagina (if one can get the rather large shaft in) and attached to the base is a clitoral stimulator that buzzes, that has the face of a rabbit, hence the name. These are part of a range of products also known as Pearl Boys that have originated out of Japan. The shafts and stimulators needed to be disguised as animals of faces so the products could be exported as novelties—one can get a Koala Boy if you so wish or a Dolphin amongst a range of other animal types.

Because of the *Sex and the City* episode, the Rabbit has taken up a mythical status within and outside the sex toy industry. It is a gimmick product that plays upon the symbolic connotations of sex and cuteness—the Rabbit—biologically the animal most associated with frenzied sex, the symbol of Playboy, yet harmless and cute. They display several symbolic conventions of the adult industry product—the ever-erect penis shaft—and the novelty of the rabbit gimmick, that was outlined in Chapter 3. The Rabbit is an adult industry product that got lucky. Despite its presence on *Sex and the City*, it is a relic I argue from another era, sometimes dressed up in a pseudo techno aesthetic to make it appear technologically contemporary as shown in Figure 3.5 (bottom row, second from right). Its reputation has been built on media hype that goes unchallenged—there is no discussion of its ergonomics or quality or safety, it just is now the Rabbit from *Sex and the City*.

Arguments aside about the quality or usefulness of the Rabbit-type products; what *Sex and the City* did was propel adult industry sex toys into the public spotlight. In turn, producers and retailers use the cultural caché of the program to promote
whatever version of the Rabbit they were selling as the product for sophisticated women (Dubecki, 2007, In-Store 2004, Halliday, 2006; Jackman, 2010; Pakula, 2008; Percival, 2004). The promotion on Sex and the City propelled the vibrator onto top-selling lists, only further reinforcing its mythology. Retailers or producers could now label it best selling. However, sex toys took one giant step into popular culture that forever raised the public’s awareness of their existence within the framework of coolest program on television for women at the time. That female consumers are still asking for product over 10 years since the original episode was screened (Halliday, 2006; Jackman, 2010; Pakula, 2008) in 1998 shows the power of Sex and the City as an arbiter of taste and a disseminator of cultural ideas.

While Sex and the City's use of the Rabbit as central to a storyline shows a relaxation in attitude towards public discussions of sex toys, the show also demonstrated other aspects of raunch culture and designer/brand culture. The Sex and the City series became a marketing and branding juggernaut based on a seductive and sophisticated post feminist lifestyle promoted through the shows story lines (McRobbie, 2008; Levy, 2005). The shows promoted an ideal of contemporary professional women, in control of their careers, chasing and discarding male lovers, dressed in the latest brands—a celebration of shopping, sex and female independence (Levy, 2005).

Levy (2005) in Female Chauvinist Pigs uses the example of Sex and the City in some detail. She says the series presented the premise that young single women should treat men and sex as men had had supposedly been treating women and sex all along—as unemotional, unattached and sex for fun. As main character Samantha says ‘... go out and have sex like a man’ (2005, p. 170). The show revolved around the four female characters’ discussions of their dates and sex lives with topics such as masturbation, female ejaculation, the taste of sperm, Brazilian waxes, threesomes, tea bagging (putting a man’s testicles in one’s mouth) and sex toys among many others (Levy,
2005). The show was influential in bringing these topics into the public consciousness.

However, Levy (2005) says the show was not so much about sex as about shopping. ‘The spirit of the show remained consistent, however, because the truly defining pursuit of their world wasn’t sex so much as consumption ... what it romanticized the most was accumulation’ (2005, p. 172). The main characters, particularly Carrie, became fashion icons and there were number of stories revolving around her shoe collection, her obsession with them, what they meant to her and how many she had. In one episode Carrie works out she could have put a deposit down on an apartment with the amount of money she has spent of shoes. Fashion, what the characters wore or bought was as woven through the fabric of the program as much as the themes of sexual experience. Levy states (2005, pp. 173-174):

The ethos of the show was all about women getting themselves the best and most, sexually and materially ... *Sex and the City* offered a complete lifestyle package—what to wear; where to eat, when to drink (always), who to have sex with—for the high-end, urban liberated woman.

The show brought together the worlds of sex, fashion and high-end design.

McRobbie (2008) says that while the sexual disclosure and range of topics on *Sex and the City* were initially shocking for their discussion on prime time television, they had been the standard fare of women’s magazines for decades going all the way back to the beginnings of *Cosmo* and *Ms.* McRobbie (2008) in her essay *Young Women and Consumer Culture* states that *Sex and the City* was a complete transplantation of the values and conventions of women’s magazines, in particular the meshing of a feminist ideology of equality and power with the classic cultural representations of the naturalness of femininity to consumption. McRobbie (2008) argues that *Sex and
the City projects the ideal that power for females resides in sexual power over men, mixed with evolving consumer trends, which she calls ‘commodity feminism’ (2008, p. 539).

The consumerist trends McRobbie (2008) refers to is the growth of markets revolving around young Western women, either girl/teenager markets or an older young working woman market. She states (2008, p. 534):

...young women in Western societies are gaining better educational qualifications, are entering the labour market in unprecedented numbers and, instead of leaving the workplace with the onset of motherhood, are delaying maternity, avoiding it altogether, or else are returning to work not long after childbirth. This emphasis among young women on wage-earning capacity, along with changes in sexual status and maternity, is also an increasingly global trend. And in the affluent West it offers great opportunities for new forms and patterns of consumption.

McRobbie (2008) is scathing in her critique of the constructions of femininity in Sex and the City. She argues the characters represent a hyper-femininity of girliness and narcissistic consumption of fashion, accessories and sexual experiences; they embody traditional stereotypes of femininity revolving around obsession with appearance and shopping. She argues that there is a lack of diversity of representation both in socioeconomic terms, race and sexuality and the characters agency revolves around the ability to consume (endlessly) and their sexual power over men.

The purpose of television shows like Sex and the City I argue while touted as pro-feminist by their producers, are essentially about selling products and brands through advertising and product placement. While promoting the concept of the working professional woman the show depicts a lack of actual
work while all female characters were obsessed in some way with historically constructed female concerns of attracting men, dating men, marriage, babies and fashion (Machin & Thornborrow, 2003). McRobbie (2008) argues the show presents a sophisticated and glossy format on to which consumers are presented all manner of commodities inside the program or outside through advertising. McRobbie states (2008, p. 543):

...the show functions as a televiual magazine and shop window for the successful launching of shoes, accessories and fashion lines well beyond the means of average female viewers and within reach only on the basis of extended credit cards and borrowing ...Sex and the City injected new life into the world of luxury goods and brands in particular key designer lines of shoes.

Shopping and the consumption of designer brands is an element to the construction of the main characters. If women around the world felt like they were seeing a reflection of themselves or what they wanted to be it was because the pages of women’s magazines had been projecting the same concepts of femininity for 20 years. The idea that women talked frankly about sexual experiences or sexual knowledge on television may have seemed shocking at the time, yet as McRobbie (2008) points out had been a staple of women’s magazines for decades.

Machin & Thornborrow (2003) analysed the way Cosmopolitan magazine operates across 44 different localised zones and yet manages to project a unified brand through creating a ‘discourse’ around sex and power for its female consumers. The authors (2008, p. 454) state:

For the producers of Cosmopolitan a ‘brand’ is a set of representations and values that are not indissolubly tied to a specific product or products. What Cosmopolitan sells to its readers are not
magazines, but independence, power and fun. These values are not only disseminated by the magazine, but also realized in and by, or enacted with the aid of, a range of other Cosmopolitan products, including television programs, clothes and other fashion items, cosmetics, and now also cafés.

Machin & Thornborrow (2003) state that *Cosmopolitan* magazine was transformed in the 1960s by Editor Helen Gurley Brown in the image of her best seller *Sex and the Single Woman*. She moved the magazine away from issues of domestication to issues of sex and work for modern women creating a powerful vehicle for the emerging feminist movement. The authors state the magazine was then (2003, p. 458):

...founded on the core values of independence, power and fun, which, in turn, are indicated through a range of social practices (work, sexuality, relationships, health, beauty, fashion).

Machin & Thornborrow (2003) document the way representations of female sexuality and work became the staple way *Cosmopolitan* projected its brand values of the ‘Fun Fearless Female’ to this day. Despite 44 different cultural and geographical regions, the magazine manages to accommodate both local cultural considerations within the company’s global discourse of the independent, powerful yet sexy woman. The authors describe how imagery and representations of women, even in the workplace, still depict a central theme of beauty and sex (2003, p. 460):

The women in these images are model-beautiful, with lush flowing hair. Their sexy clothes draw on traditional notions of female sexuality and male desire: short skirts, revealing tops, high heels, shiny red, sensuous lipstick. Women’s sexuality is the source of their power over men and of their success in the workplace. Much of this is never
explicitly mentioned in the text, but it is signaled clearly enough in
the images, through the things women are doing, and the
interactions they engage in. Female agency is linked to sexuality
and the body, whether work, love and/or sexual relationships are
represented.

As in the discussion of porn chic, take away the stylistic conventions of
constructing the career woman and the underlying discourse I argue is the
same—women’s power resides in their ability to be ‘sexy’ (*Cosmopolitan*) or
‘hot’ (porn chic). Machin & Thornborrow (2003) show there is a uniform for
the career women—high heels, short shirts, red lipstick as there is for the
pornography actress. The authors state the magazine constructs ‘...a smooth,
idealised and beautiful world in which women’s beauty and sexuality magically
empowers them’ (2003, p. 461).

*Sex and the City* and *Cosmopolitan* magazine I argue are reflective of changes
to the social and economic status of women in the late 1990s that displays shifts
from the 1970s that help explain why it is possible to produce and market sex
toys outside adult industry networks. While Machin & Thornborrow (2003) and
McRobbie (2008) state both formats still promote historical social constructs of
femininity around preoccupations to be attractive and shop—*Sex and City*, in
particular, represents a shift in social mores to discussing female sexual
behaviour more publically—not just confined to the pages of women’s
magazines. While examples also represent the continuing promotion of what
McRobbie (2008) calls the naturalness of femininity to consumption, however
in a post-feminist world ones power to consume equates with ones
empowerment in general.

Women’s magazines such as *Cosmopolitan* I argue create a slick fantasy
designer world where sex, beauty, consumerism (the right brands) enable
agency and power. According to Machin & Thornborrow (2003) the modern career woman has specific stylistic conventions and she inhabits a world of sexual adventures, fun experiences, fabulous fashions and designer objects. *Sex and the City* I argue displays the same conventions built upon a circular ongoing reference in the title of *Sex and the City* referencing feminist iconic text ‘Sex and the Single Woman’ by Gurley Brown. Machin & Thornborrow (2003) state ‘the heritage of 1960s feminism has become entwined with consumerism’ (2003, p. 468) that sexual liberation is about looking good and equality revolves around the ability to consume. Levy (2005) describes consumption as key to the themes of female empowerment in *Sex and the City* and McRobbie (2008) describes the original feminist ideals of empowerment and equality transformed into ‘commodity feminism’—empowerment through the ability to consume.

Contemporary women are I argue are surrounded through the media with powerful messages to consume luxury and branded products and behave in sexually adventurous and bold ways—‘... go out and have sex like a man’ (Levy, 2005, p. 170). The development of new generation sex toy companies that move away from the symbols and conventions of the adult industry are reflecting these socio-cultural and economic changes since the 1970s. The consumption of sex toys allows for women to behave in more sexually adventurous ways, yet the move away from pornography aesthetics to higher quality brands fits with the promotion of the idealised branded luxury lifestyle (Levy, 2005; Machin & Thornborrow, 2003; McRobbie, 2008). This idealised branded lifestyle is part of extensive and ongoing design and marketing strategies that are ubiquitous in western global commerce since the 1990s as discussed in the section on the rise of designer/branding culture (Gobe, 2001).
Summary

This chapter started with the proposition that technologically the manufacturing processes used by new generation sex toy companies in the first decade of the 21st century is not significantly different from the manufacturing technologies of adult industry companies of the 1970s and 80s. I suggested it was technologically possible from a manufacturing perspective for the market for the female-centric products developed in the last decade by new generation companies to have existed in the 1970s—therefore what other conditions were preventing that market from establishing until the early 2000s. In this chapter I have discussed how the 1990s and 2000s see a dovetailing of a number of socio-cultural, technological and economic trends for western females which explain the more favourable conditions for the changes to sex toy production and retailing since the 1970s. This helps to explain why non-adult industry sex toys are able to develop as a market and cross over into mainstream commerce (outlined in chapters 5 and 6) that was not possible until the first decade of the 21st century.

I have looked at the phenomena of raunch culture and pornification into mainstream media as representing a relaxation in public displays or discussions of female sexuality (McKee et al, 2008; Levy, 2005), along with an increase in female wealth and discretionary spending ability representing increased economic independence (Miley & Mack, 2009; Silverstein & Sayre, 2009), along with the rise of designer/brand culture in commerce representing the ubiquitous promotion of brands, fashion and designer goods (Gibney et al, 2000; Gobe, 2001; Moor, 2007)—to particularly female consumers through media products such as Sex and the City and Cosmopolitan magazine (Levy, 2005; Machin & Thornborrow, 2003; McRobbie, 2008).
Concurrently the 90s and 2000s saw the development of ICTs into smaller, personal devices created by companies pursuing integrated branding strategies, targeting the consumer in ever more sophisticated and emotional ways (Gobe, 2001; Moor, 2007; Valtonen, 2003). Competition in manufacturing in the 90s saw companies compete through increased design and branding strategies transferring the aesthetic of high design and its cultural cache, once the domain of luxury brands, to lower budget products through the use (and marketing) of the services of designers (Gibney et al., 2000). New generation sex toy companies targeting female consumers outlined in Chapter 5 and 6 have pursued design and branding strategies reflective of mainstream commercial trends rather than the historical symbols and conventions of pornography.

While the popularity of porn chic shows an acceptance of increasing levels of sexism and sexual objectification in the media (Bishop, 2007; Levy, 2005; Rutherford, 2007; Sarracino & Scott, 2008) and women’s magazines and shows such as Sex and the City continue to tout the message of female power residing in a woman’s sexuality (Machin & Thornborrow, 2003; McRobbie, 2008), the development and growth of non adult industry sex toy producers and retailers shows certain demographics of women, as discussed in Chapters 5 and 6 consuming distinctly non pornographic product. While raunch culture and pornification represent a relaxing of sexual attitudes at the end of the 20th century (McKee et al., 2008; Levy, 2005), the other phenomena outlined above have combined to create favourable market conditions for non adult industry female-centric sex toys.

Socio-culturally, Juffer’s (1998) discussion of an ethos of mistrust by female consumers towards sex toys in the 1970s because of both an anti-machine and anti-pornographic rhetoric is I argue now hard to observe in contemporary culture. The lessening of social taboos around female sexuality in general and the wide-spread use of small, personal communications devices, has been harnessed by new generation
sex toy companies to develop I argue more appropriate product design for the contemporary female consumer, with a consumer acceptance of technology that is significantly different from the 1970s.

Technologically, the current ubiquitous presence of small ICT devices dispels Juffer’s (1998) discussion of the anti-machine rhetoric of the 1970s, yet perhaps of equal consequence has been the development of the internet itself. The internet has enabled a decentralization of sex toy production and retailing away from the traditional providers of the adult industry that was discussed in Chapter 6. ICT and the internet has allowed women to access erotica and pornography within their own domestic environments, as Juffer (1998) proposed in 1998.

It has allowed a greater range of products and services to be available to them in a more accessible way. This technology has also enabled the growth of both sex toy producers and retailers from outside the adult industry to engage with each other. It has also enabled the communication and promotion of these businesses, which legitimises non-pornographic sex toy commodification and further encourages I argue entrepreneurs from outside the adult industry to create products and services—growing the market, creating competition and innovation and providing alternatives to traditional mainstream adult industry products and services.

Chapter 5 and 6 outlined how new generation companies from a manufacturing and design perspective can design, brand and promote their products and services outside of traditional adult industry networks into mainstream social and commercial acceptance. These products and services are successful not just because they pay closer attention to female sexual and psychological needs, but they also embody other aspects of the socio-cultural and technological zeitgeist—the consumption of designer/branded commodities and personal electronic communication devices, the development of the internet for personal
and business communications, and the changes to social mores around the public discussion and display of female sexuality, that I have discussed has changed from the 1970s to the first decade of the 21st century.

In relation to the research question of how sex toys may go from a socially and commercially taboo perception to mainstream, the answer lies not just in the designing and marketing of non-pornographic, higher quality products and services, or matching those products and services to the lifestyles of sophisticated brand saturated female consumers, or the changing of social mores around female sexual behaviour and attitudes, or the development of technologies which allow for the diversification of markets and dissemination of information—it is the combination of all of these conditions which has allow for a shift in sex toy commodification away from taboo historical adult industry symbols and conventions in the first decade of the 21st century.
Figure 7.2. Example of mood board—Nokia, circa 2000
Figure 7.3. Comparison of Nokia mobile phones from late 1990s to mid 2000s

Chapter 8

Analysis of Chapter Findings and Conclusion

In this chapter I evaluate the aims of the research against the outcomes of both the literature generated and the artifacts of the research design project addressing the research questions. I also discuss the contribution of this research to new knowledge, demonstrating its innovativeness and how it contributes to furthering existing knowledge. I then discuss the limitations to the research and design project and finally what further research maybe investigated in the future in light of emerging trends identified in the thesis.

Answering the Aims of the Research Questions

In answering the central research question, how the sex toy industry may go from being a socially and commercially taboo activity to a mainstream one, I firstly pursued two sub-questions—how and why the industry was taboo in the first place, and why industrial design in particular is central to bring the product genre from social and commercial marginalisation to mainstream acceptance. The literature search identified a significant global market with a majority of this market being female consumers. Despite this the production is dominated by the symbols, standards and conventions of adult industry providers. Through my own comparison of adult industry sex toy product in Chapter 3 to historical pornography symbols and conventions I questioned the compatibility of the adult industry with its historical focus on the male consumer and in significant number of cases unsafe product to adequately address the needs and desires of contemporary female consumers.

I compared three distinct eras—the Victorian period of the late 19th and early 20th century—the 1960s to late 20th century covering the sexual revolution—and the first decade of the 21st century. These periods were significant for showing distinct
changes to sex toy production and their precursors and the relationship of this production to the prevailing socio-cultural attitudes to female sexuality of each era.

This broad historical scope identified significant shifts in female sexual attitudes and behaviours across that period in Western society which demonstrated socio-cultural and technological conditions had changed by the 2000s to enable the production, distribution and retail of a different type of sex toy that the adult industry had been providing for four decades. I also showed, through the comparison of these eras, that the adult industry had not responded to these significant shifts in attitudes: knowledge and behaviour of female sexuality and its products were still embedded with Victorian sexual ethos. This broad historical view showed there was a need or gap for a different type of sex toy for contemporary female consumers.

A review of Maines’ (1999) research showed that the development of the Victorian vibrator industry was directly related to dominant and long standing socio-cultural views around female sexual functioning. As the basis for understanding sex toy production I took the approach of design historians such Forty (1986), Lupton (1993), Spark (1995), Sudjic (2008), and Maines (1999) that mass produced artifacts were embedded with the socio-cultural notions of the eras in which they were developed.

In using the examples in Figure 1.3 to demonstrate, each era is a reflection of the standard manufacturing technologies of the day. However, when the socio-cultural sexual ethos of each period is analysed against the products, the research I argue has shown that the adult industry products of the late 20th century, while closely aligned with the 21st century product in manufacturing technology, is more closely aligned with the sexual ethos of the Victorian vibrators.

There in lies the problem for adult industry product, as a historical review of its relationship to pornography shows contemporary products and services still display entrenched and longstanding symbols and conventions as evidenced through my
review of adult industry sex toy product in Chapter 3. These symbols and conventions are not only reflecting historical social taboos but the products are developed upon outdated Victorian notions of female sexuality. To reiterate an important point—the broad historical comparison I have used has shown the adult industry has not keep pace with the significant changes to knowledge and attitudes of female sexuality across the 20th century.

In establishing that adult industry sex toy products reflect long standing historical taboos due to its continuing relationship with the broader adult industry itself a further sub-question was necessary—what affect does this taboo and marginalisation have on product outcomes? This becomes important for the design project as defining problems or issues and their causes is important for developing alternative solutions and market differentiation. The social and commercial marginalisation of the adult industry discussed in detail in Chapters 2 and 3, showed sex toy producers, distributors and retailers encountering legal problems with the ability to openly and honestly communicate product information. I also argued that being tangled in the broader morality battles of the adult industry prohibits and stifles entrepreneurship, investment and innovation.

The underground and unregulated nature of the industry allowed for manufacturers to use sub-standard material safety. These issues are significant for female consumers first, as products interact in a potentially physically intimate way with users and material safety should be a paramount design and manufacturing consideration. Second, the lack of the ability for producers and retailers to openly and honestly communicate product information inhibits the ability of consumers to access appropriate and safe products, and contrasts with standard government legislation developed for other consumer categories.
The historical review of products and literature showed how sex toy production and consumption was still significantly taboo at the end of the 20th century affecting product and services outcomes and inappropriate to a broad range of contemporary female consumers. Central to this is the domination of sex toy production by adult industry providers since the 1960s and 70s. The literature and product reviews in Chapters 2 and 3 has shown the relationship between sex toy commodification and the greater adult industry has affected the types and quality of products. The industry has been affected by the same socio-cultural taboos around pornography as the greater adult industry itself, and adult industry sex toys have reflected the symbols and conventions of the pornography not the emotional, reflective or physical needs of varied contemporary female demographics or psychographics. The use of these symbols and conventions such as literal representations of genitalia in product design, and packaging reflecting stereotypes of females as sluts and porn stars as shown in Figures 3.1 to 3.14 in Chapter 3 reinforces public perceptions of sex toy production as pornographic and commercially marginalised.

Business and marketing estimates, health and sexual surveys show significant numbers of women consume sex toys annually across the western with the toxicology surveys available showing extremely high levels of potentially unsafe materials. It is still common practice for adult industry companies to label products as novelty items in an attempt to dodge responsibility for health or safety issues. Yet Hewson and Pearce (2009; 2011) and Comella’s (2008a) assessment of what the contemporary female consumer wants in sex toy products are products of quality, beauty and pleasure— something that works well and lasts a long time. They want to be educated and access information about sex and sexuality.

This was already the starting point for my research design project—to provide an example or design solution of product differentiation away from the historical symbols and conventions of the adult industry as a way of moving sex toy production
from taboo to mainstream by focusing on contemporary female consumers as central to design and branding considerations—based on my own conclusions about a contemporary female demographic. The subsequent survey information in Hewson and Pearce (2009; 2011) and Comella (2008a) confirmed the initial direction I had taken. I argued that the methods and processes of industrial design are central to developing more appropriate products for contemporary female consumers. Industrial design process and methods are central to the creation of more appropriate or varied product because it is a design process that puts the needs of the potential user, both physical and psychologically at the centre of design. This is within well-established frameworks of product safety and manufacturing standards. Industrial design process and training involves the understanding of manufacturing quality and safety, the centrality of the emotional, psychological and physical needs of potential user to the outcomes, and the ability to innovate existing materials and processes into a variety of new configurations to suit specific demographics or markets. The key competencies of industrial design practice relevant to this research are a user-centred design approach and the ability to design for innovation into existing markets.

In Chapter 5 I addressed the research question through a design solution by developing an alternative to adult industry product through an understanding of the contemporary female consumer. The historical review identified that product differentiation away from the historical taboos of pornography was a key design consideration. This differentiation I argued involved not just a range of aesthetics displaying distinctly non-pornographic styling but the considerations of principles of quality manufacturing and material standards, transparent and detailed product disclosure, and a design process that puts the target consumer group at the centre of the conceptual design process reflecting the later survey information provided by Hewson and Pearce (2009; 2011) and Comella (2008a).
The design solution to address the research question involved the development of a sex toy brand based around the product values of my sex toy design considering the above principals. The Goldfrau project developed product and branding for a contemporary female niche market. In the course of this research project the Goldfrau brand was launched onto the global market in an attempt to trial the proposition that a potential market exists for a higher quality brand embodying non pornographic values that has been outlined in Chapter 5. The Goldfrau project demonstrated that there is a niche market for higher quality product with non adult industry symbols and conventions that is also able to be exhibited, sold and marketed outside of traditional adult industry networks promoting non taboo socio-cultural and commercial perceptions that is evidenced in the acceptance of Goldfrau artifacts and events in the non adult industry market place and fields.

To further this example of industrial design process and methods providing product and brand differentiation away from adult industry norms, I document in Chapter 6 a range of other new generation production companies following similar strategies to Goldfrau. That is the companies I have documented are developed by industrial designers or engineers with product development experience or entrepreneurs who have engaged industrial design consultancies. These companies are also providing non-pornographic aesthetics and branding, higher material and manufacturing quality and transparent disclosure of materials and processes in company communications. The development of these sex toy brands has enabled the promotion of their products within broadsheet, design, fashion and health media as evidenced in the literature review of each example given in the chapter. It has also enabled the retail of these products out of the sole confines of adult industry retail and into department stores, big-box stores such as Wal-Mart and Chemist chains. This suggests that the development of products and brands that differentiate themselves away from historical adult industry symbols and conventions are able to move from a perception of taboo to socially and commercially mainstream products. This suggests that using
the strategy of an industrial design process that focuses on a contemporary understanding of the female consumer to develop product and brand solutions enables this shift.

To further this argument I documented a corresponding trend within the retail sector of the growth of female-centric stores that like the above companies, focuses specifically on a contemporary understanding of the female consumer. I argued that this new generation of production and retail companies are reflecting the socio-cultural and technological changes of the 1990s and 2000s, as discussed in chapter 7, to create substantially different products and services from the traditional adult industry companies.

The investigation of socio-cultural and technological changes from the 1970s outlined in Chapter 7 is important to answering the research question because the changes identified suggest the dovetailing of a number of socio-cultural and technological phenomena at the beginnings of the 21st century have created new and favourable conditions for the development of a sex toy market away from adult industry symbols and conventions. There is relaxation of sexual attitudes as evidenced by an increase in the sexualisation of media and advertising content, the cross over of pornography symbols and conventions into mainstream media and commerce and an increase in the availability of sexual commodities through new technologies.

However, the relaxation of sexual attitudes as evidenced by an increasingly sexualised media content termed raunch culture, porn chic or pornification is not the only significant factor in the development of these new generation producers and retailers as the growth of this female-orientated erotic market is reflecting commercial trends that move away from historical symbols and conventions of pornography as shown in the examples of Chapters 5 and 6. Other significant phenomena this research has identified is also four decades of growth in female discretionary, a
valorisation of branding and labels through shows such as *Sex and the City* and women’s magazines, the development of communications technologies into ubiquitous personal devices and a higher awareness by the public of design values through the increased use of styling by manufacturing companies to differentiate brands that was discussed in Chapter 7.

Significant changes to the marketing and branding of product design and technology by the first decade of the 21st become important to understanding why a shift is taking place within sex toy product away from adult industry norms. Firstly, the development of ICT devices such as mobile phones and personal computing has created a public at ease with technology. This dispels any feminist discourses from the 1970s about the unnaturalness of interactions between the female body and technology.

Secondly, development and commercialisation in the 1990s of ICT personal devices and the corresponding increase in use of product styling to communicate brand values are important to understanding the success of industrial design orientated sex toy products. The sex toy producers documented in Chapter 6 and the Goldfrau design project reflect the importance of understanding consumer awareness of product quality, styling and branding attributes targeting lifestyle and identity. This combination of acceptance of technology driven personal devices by the public and a greater use of product styling attributes in product branding reflecting consumer lifestyle and identity allows for the growth of a new generation of sex toy producers developing products away from adult industry thematic styling ques.

Thirdly, the influence on the ability for new generation producers and female centric retailers to develop the market alternatives for female consumers has been the ability of the internet to provide niche global audiences and consumer groups through communications technology. The internet has provided a technological platform for
increasing the proliferation of adult industry content however this research has shown it has enabled diversity within sex toy production and retail as evidenced in the examples presented in Chapter 6. Retailers and producers are able to establish points of contact with consumers and each other completely outside the traditional networks of the adult industry. The research design project, Goldfrau, is an example of being able to establish a sex toy brand without interacting with adult industry networks.

Figure 8.1 is a visual comparison of the dramatic changes that have be made to sex toy production in the last decade. These two products released onto the market exactly 30 years apart typify the different approaches to sex toy design and manufacture by the adult industry in the late 20th century and the industrial design profession of the early 21st century. While both products are dildos designed for similar purposes—that of penetration of the vagina, they represent completely different attitudes to female sexuality and embody different messages and values. This typifies the approach of the industrial designer influenced sex toy companies and the shift in sex toy design and production in the first decade of the 21st century which puts a contemporary understanding of the potential female consumer at the centre of design considerations as a starting point for product development and not builds upon the historical symbols and conventions of pornography.

The research design project set out to trial the proposition that industrial design processes and methods could provide models and exemplars for developing sex toys that would embody different cultural values than adult industry product by reflecting the needs and desires of contemporary female consumers—that this had the potential to change public perception of the sex toy industry as taboo or pornographic. The products documented in this thesis developed by a new generation of industrial design influenced sex toy companies, including the thesis design project, Goldfrau has shown it is entirely possible to develop products and services that move sex toy production and retail from taboo to mainstream commerce.
In conclusion, the aim of the research was to investigate how the sex toy industry may move from a socially and commercially taboo activity to a mainstream one. The historical approach of the literature and product reviews of Chapters 2, 3 and 4 established why the industry was taboo and what effect this was having on product and service outcomes. This established a mismatch between adult industry providers and a contemporary female consumer which could then be used as a basis for product differentiation and market innovation through an industrial design project outlined in Chapter 5. While the literature review in Chapters 2, 3 and 4 established both the contemporary and historical problems and issues with adult industry aligned sex toy production, the design project was able to develop a set of artifacts that provided an example to address these issues with a design solution. Further to this the documentation in Chapter 6 also provided other examples of design and retail companies addressing the gap in products and services between female consumers and adult industry providers. In particular, the industrial design examples of Chapter 6, show a similar design and branding strategy to the research design project, further evidencing that a user-centred industrial design process can move sex toy production from taboo to mainstream. Finally, the discussion in Chapter 7 showed the socio-cultural, economic and technological changes between 1970 and 2010 have created favourable conditions for the development and growth of female-centric sex toy producers and retailers that were not possible in previous decades.

**Contribution to New Knowledge**

This thesis has added to the small amount of design media (Design Week, 2001; Dowdy, 2005; Taormino, 2004; Stewart, 2004; Valhouli, 2001), historical (Maines, 1999), sociology (Comella, 2008a; Storr, 2003) or cultural studies texts (Attwood, 2005; Curtis, 2004; McCaughey and French, 2001; Heinecken, 2007; Smith, 2007) on sex toy production or consumption. In particular it builds on Maines (1999) documentation of the Victorian vibrator industry by documenting sex toy production
in two later periods—the late 20th century and the first decade of the 2000s using Maines (1999) approach of analysing the relationships between sexual behaviour and beliefs, mass production and technology.

It also builds upon Juffer’s (1998) analysis of female consumption of sexual commodities at the end of the 20th century. My documentation of changes to sex toy retailing and production in Chapters 6 bought about by the technologies of the internet is an example of Juffer’s (1998) proposition that ICT would change the way women could access sexual commodities by providing the means to consume such commodities in the privacy of their domestic environment. It also adds to Juffer’s (1998) example of the mainstreaming of women’s erotic literature by providing a complimentary example of the mainstreaming of sex toy production through similar means—the changing of aesthetic outcomes, the attention to quality product and an understanding of a contemporary female consumer, resulting in products crossing over into mainstream commercial outlets.

Juffer (1998) makes an interesting point about the shift from the medical vibrator of the Victorian period to the home appliance of the 20th century. She (1998, p. 85) states:

> This shift from the medicalization of the vibrator to its status as household appliance corresponds with the historical shift from women as sickly creatures in the late nineteenth century to managers of efficient homes in the early twentieth century; the ideology of domestic work as science included the professionalization of housework and the development of the field of home economics ... Indeed, many of the early vibrators were seemingly designed to look like other household alliances.

This research has added to this story by investigating female consumers in the next period of late 20th century to early 21st century if we take Juffer’s (1998) view (and
Maines, 1999) that shifts in sex toy production and consumption tell us about attitudes to sexuality, female sexuality or gender construction. As this thesis has shown, the social stigma towards consuming and using sex toys recedes through the design and marketing of non pornographic devices, sex toys, I argue will become to be seen widely as any other gadget—a fashion accessory or a lifestyle product or a personal care device. The social ‘discourses’ of the feminist movement around the preference for natural unmediated sex or the distrust of commodifying female sexuality have all but disappeared. These products are a progression of what Goren (2003) discussed in her analysis of the Western sexual self and technological progress across the 20\textsuperscript{th} century in Chapter 4.

Goren (2003) describes a cultural change across the 20\textsuperscript{th} century in the way we view our sexual selves transforming from a private intimate act or experience to a technologically mediated experience, where we view our bodies and sexuality as ‘things’ we can moderate, manage and change through technology and commodities. This in general reflects the technological transformations across the 20\textsuperscript{th} century as product or communication technologies increasingly encroach upon our physical and psychological selves to the point where boundaries are blurring between technology and humans, Self and commodities. Goren (2003) argues our identities are increasingly constructed through the type of commodities we consume. She describes a contemporary ‘technologized and commodified self and body, with a collapse in former separation of private and public and increasingly objectified expressions of sexuality and personal expression in general’ (2003, p. 497). The changes to sex toy production and commodification as documented in this thesis is an example of what Goren describes—the collapse or blurring of our boundaries between technology and our sexual experiences.

The documentation of the design project of the thesis and the influence of industrial design process and methods on new sex toy product development in the 2000s is not
just a discussion of the relationship between the socio-cultural meanings of mass produced objects and consumers, but also a discussion of the relationship between objects, consumers and the designers of those objects. This is an example of Julier’s (2008) discussion of design culture shown in Figure 1.2—that is design should be discussed between the triangulation of designer, production and consumption. In this particular case, the changes in sex toy production as discussed in Chapters 5 and 6 directly relate to the training and practices of the industrial design profession. It is central to the research outcomes to use industrial design process, methods, and training to develop solutions which enable sex toy production to move from taboo to mainstream. This research has discussed the area of sex toy production using elements of all three areas Julier (2008) proposes.

This thesis also builds on Hewson and Pearce’s (2009; 2011) literature on the decline of the male-orientated erotic economy and the growth of the female-orientated erotic economy due to the growth and development of female-centric producers, brands and services that move away from traditional adult industry norms. The outcomes of both this thesis and Hewson and Pearce’s (2009; 2011) market research come to similar conclusions through the perspectives and methods of different academic fields. Hewson and Pearce’s (2009; 2011) methods involve a marketing and business analysis and the evidence of this thesis through a design perspective and design process is complimentary to Hewson’s work. The combination of both sets of research starts to develop a commercial case for a developing design and retail trend that can be used by designers, marketers or entrepreneurs investigating opportunities into what Hewson and Pearce (2009; 2011) referrers to as the female-erotic economy.

This thesis demonstrates new knowledge and innovativeness in regards to design research as there is there is no other comparable piece of research into sex toy design either an historical account or a contemporary analysis or design project at PHD level. The research has brought together from a disparate range of sources covering
history, sociology, design, business, branding and marketing into a cohesive body of work on historical and contemporary sex toy production—which has not previously existed.

This thesis has also placed sex toy design and production for the first time within the theoretical and practice based fields of industrial design by discussing this product genre with the frameworks of current design practice, methods and concepts. It also sits with the design history field as an example of mass production reflecting not just the technical capabilities of an era but the socio-cultural and in this case the sexual ethos as discussed by (Forty, 1986; Lupton, 1993; Spark, 1995; Sudjic, 2008).

Limitations of Research

Due to the broad historical review of adult industry symbols, conventions and practices in establishing a solid foundation for gap and significance from the literature to develop a design solution, a method other than the design process was not established to produce data from the design project. The type of data that could have been produced that may have added to the design solution artifacts could have been surveys, interviews or questionnaires of Goldfrau consumers or retailers. Interviews of the companies and designers discussed throughout the research, including adult industry providers and new generation producers would also have provided new primary sources about industry practice. I had to rely on secondary sources of information, some of which was provided by the companies themselves and must be view critically, as this information is a blend of product disclosure, technical specifications and marketing strategy to show companies and products in a favourable light. Time constraints did not also allow for a more detailed technical analysis of either adult industry or new generation products through the use of product teardown methods developed in product design engineering, which involves the disassembly of products and analysis of the attributes and functions of separate components (Ulrich & Eppinger, 2004; Otto & Wood, 2001).
Further Research

The approach of the research to establish a broad historical review positioning the sex toy genre within the design practice field creates a basis for building on further research by myself and others. Applied research design projects with practice based investigations can now build on sex toy design through the trialing of different industrial design process and methods than used in this project. There is the theory and methods of sub-fields of design research and design practice such as Interface and Interaction design, User-centred Design, Human-computer Interaction. Designers can focus on more detailed technical investigations relating to ergonomic questions because significance and gap have been established through the literature and product reviews of this research. The industrial design process and methods used and discussed in this research are commercially standard practice—they are not innovative in themselves—the innovation of the design project came from applying them to an industry that had not been traditionally using them. So the possibilities for further research or applied research projects are now open to apply more leading edge, experimental or innovative methods to sex toy design.

This research has taken the position that mass produced artifacts are embedded with the symbolic and behavioral socio-cultural notions. Sex toys and their precursors also reflect the sexual ethos of their eras and are reflections of the sexual relations between men and women not just on an intimate personal relationship level, but are reflective of societies more broader and powerful longstanding mores and beliefs. This research has identified through the literature that little has been studied of them, yet as a topic they are a rich subject and scope exists for more analysis, particularly for focusing historical, sociological or cultural studies projects into more detailed but smaller periods than the broad review this research took.

In regards to Goren’s analysis that the 20th century sees a slow but steady trend towards the mediation of sexuality with technology, which I have suggested above
this thesis is an example of; is now interesting territory for further research in cultural studies, design and marketing fields as this thesis has documented a shift towards a greater acceptance of technology and product design within personal sexual practice and a lessening of taboos around sex toy consumption. This thesis however, framed a specific part of sex toy production— that of the design and retailing of vibrators and dildos to female demographics and psychographics. The market is far more diverse in product categories and some developments within the adult industry around life size silicon dolls and animatronics. Levy (2008) discusses in his text on the future possibilities of robotics and sexual interaction point to a very interesting and potentially controversial future that was outside the scope of this thesis to discuss and document that is potential area of further research. As sex toys come to be perceived as recreational, entertainment or health and wellbeing devices without social taboos there is the potential to develop new genres of sexual commodities for both men and women consumers as industrial design research and practice around human or user-centred design meets new interactive and interface technologies.
Figure 8.1. Comparison of late 20th century Adult Industry dildo with early 21st century Industrial Design influenced dildo.

References


European Adult News. (2007, August) People Nowadays are Used to Buying Brands, pp. 70-75.


477


WeVibe Website. (2010) Designed for Lovemaking, WeVibe Product Information. Last viewed January 5, 2010. [http://we-vibe.com/content/design](http://we-vibe.com/content/design)


