

# Developing Entertainment Technology for Women: A Feminist Perspective

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## ABSTRACT

As entertainment technologies become more prevalent in homes around the world, it becomes increasingly important to consider the relationship between women and entertainment technology. In this paper, I outline the importance of women as a market for entertainment technologies, citing several studies that indicate that women will be the key purchasers and users of entertainment technologies for the home. Then, I draw from feminist literature to identify risks and opportunities for the design and development of new entertainment technologies. Finally, several areas for future research on women and entertainment technology are suggested.

## Keywords

Entertainment Technology, Consumer Electronics, Women, Feminist Theory

## INTRODUCTION

As technology increasingly moves into the domestic sphere, we must consider the relationship between women and the design, marketing, and sale of entertainment technologies. Studies show that women are the primary purchasers of goods for the home, including entertainment technologies. For instance, although they make up only half of the US population, women are responsible for nearly 85% of consumer spending, and are key decision makers for home, appliance, automobile, and consumer electronics purchases [1]. Furthermore, recent studies have demonstrated that the antiquated notion that women are not interested in entertainment technology is simply not true. In a recent study, a majority of women surveyed by the Consumer Electronics Association chose an HDTV over a 1 carat diamond ring, and a digital camera over a pair of ½ carat diamond earrings (the study equated items of similar cost) [8].

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Yet, women are still largely overlooked in the design, marketing, and sale of home entertainment technologies. With a few notable exceptions (see [6]), attempts to design and sell technology for women have emphasized gloss over substance. Studies have demonstrated that while women value style, they do not seek feminine styling at the expense of functionality and good taste [8]. Moreover, women resent being marketed “down” to. For example, the use of “female colors” in products tends to be counterproductive [8]. Yet, the vast majority of entertainment technologies on the market either embody stereotypical notions of women’s color and style preferences, or else they fail to address women all together.

Despite prevailing evidence that women are important purchasers and users of entertainment technologies, why are they overlooked in much of the design and development work to date? I posit that entertainment technologies are experiencing the pitfalls identified in the feminist literature on women and technology, and without a deliberate course correction, developers of entertainment technologies risk alienating or marginalizing the most important market for these new devices - women. In the remainder of this paper, I will review four feminist theories on women and technology. Following each, I will highlight how the theory can inform our understanding of women and entertainment technologies, and identify opportunities to more fully include women in the design, marketing, and sale of these products. Finally, I will suggest opportunities for the research community to follow up on previous studies, and include women as active participants in the development of new entertainment technologies.

## TECHNOLOGY AND MASCULINITY

The first, and perhaps most universally prevailing, approach to women and technology posits that there is an implicit cultural association between technology and masculinity. That is, technology itself is somehow masculine. Though there is some debate within the field about whether this link is biological in nature or social – arising as a natural extension of the link between masculinity and science, there is surprisingly little debate about the existence of such a link [7].

Feminist authors suggest that it is this connection between masculinity and technology that is responsible for sexist humor about women as technology incompetent, and the biased treatment of women inventors and innovators throughout history [14]. Indeed, many authors have pointed out the notable absence of the important technical contributions made by women as inventors, including their involvement in early computing development and telephony [13]. The connection is also responsible for a gendering of technology and what counts as technical. Cockburn and Ormrod argue that, because of an ideological link between technology and masculinity, “technical” has consistently been defined in such a way to exclude technologies designed by women and those used primarily by women [4]. For example, closets, washing machines, and tampons, all once considered very high-tech, are all but overlooked in the histories of technological innovation [4].

This approach suggests that we need to carefully consider what we mean by “entertainment technology.” As Cockburn and Ormrod [4] suggest, it may be easy to overlook certain entertainment technology applications for women as not suitably “technical.” Without broadly considering all that might be considered entertainment technology, we may inadvertently miss opportunities to design technologies that appeal to the entertainment needs and desires of women. In fact, studies of men and women and online activity already suggest that women prefer to spend their time with technology differently than men. While men more frequently use the Internet to surf news and sports scores and download music, women more frequently seek spiritual information and frequent online support groups [10].

This suggests that we need to think broadly about entertainment technology – beyond connected and streaming media. By considering the range of things women consider entertainment, including spirituality and socialization, we will more completely address the needs and desires of female consumers, and likely identify innovative new approaches to the design and development of entertainment technologies.

### **ECO-FEMINISM**

One response to the literature positing a link between technology and masculinity comes from eco-feminists who argue that technology is a tool that men use to dominate and control nature and women [7]. Women, from this perspective, are considered to be closer than men to nature because of their biological ability to give birth. Because of this ability, women are more sensitive to the natural world, more in tune with emotions and spirituality, and more prone to pacifism and nurturance [14]. Men, by contrast, are less likely to consider the emotional ramifications of their actions, and are thereby more likely to design technologies that promote violence, domination, and control.

The vast majority of the criticisms posited by eco-feminists are directed at military and reproductive technologies.

However, some have extended the criticism to computers and video games, arguing that girls are turned off by the violence and destruction in many popular video games and are therefore less likely to use the computer as children [2].

This theory suggests an argument against some dominant entertainment paradigms of aggression, power, and violence. Aggressive and violent media are often used to showcase the capabilities of new entertainment technologies, yet marketers could easily suggest similarly interactive, yet less violent media for their sales and advertising campaigns. For example, instead of showcasing new entertainment PCs as platforms for downloading and viewing the latest war- and sport-based games and movies, they could also be marketed as tools for downloading and viewing family videos, for supporting interactive communication sessions, or for securely making online purchases. Moreover, entertainment PCs could be marketed as having all of these capabilities, appealing broadly to men and women with a variety of interests.

### **LIBERAL FEMINISM**

While masculinity and technology theorists and eco-feminists argue that technology is inherently gendered, liberal feminists argue that technology itself is neutral. Any gender differences that arise result from the ways that men and women are differently positioned in relation to technology. Liberal feminists argue that men and women are fundamentally equal in their abilities to adopt and use technology, however because of the gendered roles women have been forced to take in our society (such as mother and housewife), they are socialized to be less tech-savvy [7]. That is, women’s potential is not fully realized because of sexism and stereotyping about appropriate social roles for women. From a very young age, girls are prescribed roles that are tech-adverse, and a lifetime of small deprivations ultimately alienates women from technology careers and even from technology itself [9].

To combat social inequalities, liberal feminists have suggested a variety of training programs to help women catch to men on the technology front. Suggestions include training and mentorship to encourage women to pursue education and careers in science and technology and affirmative action programs to ensure that a certain fixed number or opportunities are reserved for women [7]. However, critics point to the relatively limited success of these programs as evidence for the relative underdevelopment of the liberal feminist approach. Critics argue that liberal feminism fails to account for the nature of technology itself, and fails to fully acknowledge biological differences between men and women [7].

Recently, liberal feminists have proposed a blended social and biological explanation for the differences between the relationships between men and women and technology. While socialization into stereotypical gender roles is agreed to be the reason that women are perceived to lag behind men in their adoption and use of technology, some liberal

feminists argue that this socialization has its roots in biological and behavioral differences in the ways that men and women prefer to interact with technology. Turkle and Papert argue that women prefer a holistic, open-ended, and creative approach to technology engagement that is discouraged both by formalized education and by technology itself [12]. Thus, when women naturally engage with technology they are told what they are doing is wrong socializing them away from using technology and pursuing technical careers.

Moving forward, designers and developers of entertainment technologies should draw from key themes in liberal feminism. In particular, it is important to embrace the notion that men's and women's aptitudes for and interest in technology is fundamentally the same. Similarly, understand that men and women are not on opposite ends of a spectrum where men are equated with tech-savvyness and women with tech-avoidance. Studies have already demonstrated that this is simply not the case, and relying on this outdated stereotype enables the ongoing apathy towards women as important technology consumers. Instead, developers should recognize the elastic relationship between men and women and between tech-acceptance and tech-avoidance, and reject stereotypical assumptions about women's desire and aptitude for entertainment technologies. Doing so will not only enable better technology design for women and reduce the risk of alienating women from entertainment technology all together, but also will very likely yield better technology design for all people along the tech-accepting/tech-avoiding spectrum.

### **TECHNOLOGY AS MASCULINE CULTURE**

Unlike previous theories that have focused on social and biological differences that may account for variable relationships between men, women and technology, some feminist theorists argue that women's alienation from technology is a product of the historical and cultural construction of technology as masculine [4]. Although technologies are not inherently gendered, the conceptions of masculinity and technology are so intertwined that technical aptitude has become part of the definition of masculinity, and masculinity is implicated in the design and use of technology [7]. From this perspective, technology is not simply hardware or software; it is a set of knowledge and practices relates to its use and association with men. It is posited that women's alienation from technology began during the industrial revolution when work was separated into public and private spheres [7]. The result was a gendered division of labor where men engaged in "skilled" work in the factory and women in "unskilled" work in the home. The division laid the foundation for male dominance of technology as skilled labor came to be associated with the machines of factory work and unskilled labor with the (less automated) technologies of the home [11].

Feminist research of this type stresses that the exclusion of women from technology is as much a feature of contemporary society as it was during the Industrial revolution. Because women continue to be a minority in the development of technology, artifacts have become gendered to embody a particular set of masculine cultural assumptions. Namely, technologies tend to appeal to the values of factory work including efficiency, control, power, and competition. Moreover, these values come to be regarded positively, as the only, or the best values to strive for. Once developed, technologies embodying these values only reinforce assumptions and the corresponding gender divisions [3]. Thus, for women to engage with technology, they must commit to engage with unfamiliar artifacts, and also renounce, at least temporarily, their feminine identities [12].

Based on this approach it is evident that the developers of entertainment technologies must very carefully consider the values they embody in the products they make. Deliberately or not, it will be very easy for technology companies that continue to be staffed by a majority of male engineers to embody masculine values in their technologies and alienate the large, and important, women's market.

There are several tactics that companies can use to avoid designing biased products. First, whenever possible, women should be included on entertainment technology design and development teams. Having women present throughout the design process will help facilitate balanced decision making. Companies can also dedicate project time to consider how classic women's values such as empathy, sociality, and cooperation can reflect in entertainment technologies. Such an exercise will not only ensure more appropriate and appealing entertainment technology development, but will also likely yield more innovative product ideas.

### **DIRECTIONS FOR FUTURE RESEARCH**

In addition to the implications suggested throughout the previous sections, a review of literature on women and entertainment technology points to important opportunities for future research.

First, the vast majority of research on women and technology has focused on the US, UK, and Canada. In order to fully understand the women's needs and desires for entertainment technology, it is important that we take global approach to product design and development. To do so effectively, designers and developers need more information about women around the world. There are several ways to get this information. As a first step, entertainment technology researchers should specifically call out women as a population in all of the research we do. In many studies women are grouped with households, making it very difficult to tease apart the behaviors and activities that are specific to women and that may differ from their families.

The research community should also conduct women-specific research on a variety of topics. There is a relative dearth of research focusing on women in the home. For instance, although we know that nearly half of US women are not employed full time outside the home [5], we have very little information about how these women are spending their time. A study of such women would yield interesting results and help us to identify values and patterns of behavior to guide the design of new entertainment technologies for the home. Such a study should be repeated in a variety of geographies, and results should be compared and contrasted so that entertainment technology development can be globalized and /or localized appropriately.

Finally, key learnings from the feminist literature on technology, such as those outlined in this paper, should be applied to influence the design and development of entertainment technologies. Companies should reject stereotypical notions of women's interests and women's roles when they design entertainment technology, and instead should recognize and treat women as equal and important consumers as they develop, build, and market new products. The evidence shows us that women are an important but overlooked market for entertainment technology. There is a great opportunity for companies to understand women, actively include them in the conceptualization, development, and marketing of new products, and create new opportunities for their business and new markets for entertainment technology.

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