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Constructions of Gender in Computer Magazine Advertisements: Confronting the Literature

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Abstract

Previous studies (Sofia, 1998; 2002; Turner & Hovenden, 1997; Weinstein, 1998) discussed the power relations surrounding the advertisements for computers in computing magazines, in particular deconstructing the imagery and text which manifested the dominant digital discourse of power (Millar, 1998). In these studies, the authors found that women were positioned as incapable and impotent users of computers.

The authors examined a number of New Zealand and Australian home computing magazines published in 2003 and 2004, looking for evidence of the gendered nature of technology or examples of any form which would constitute discrimination against women or other identity categories. The purpose of this research was to determine whether previous arguments were still relevant and current, or whether advertisements had changed to accommodate populist understandings of gender and cultural equity, or reflect improved power relations between the sexes.

In this paper we have explored the findings of a study, which, although small in scale, raises larger questions concerning the 'new' ways in which issues of gender influence advertising focused on computers. Whilst there has been a significant reduction in overtly sexist texts, hegemonic understandings of masculinity and femininity nevertheless continue to structure mainstream advertisements with women routinely positioned in passive, non-expert or very limited kinds of roles. The extent to which this imagery reflects broader social patterns regarding the re-emergence of traditional portrayals of women and men in the media more generally will be the subject of future studies.

Introduction

For many years it has been consistently argued that computers are represented in magazine advertisements as sites where masculinity is defined as powerful and men are active users of computers, in contrast with women, who are represented as lacking in technical know-how and as passive users of computers (Sofia, 1998; Turner & Hovenden, 1997; Weinstein, 1998). Additionally, it is now widely accepted that many computer games have been designed with a (fairly specific) male user in mind and have as a result, catered to stereotypical, hegemonic understandings of male interests (Huff, Fleming & Cooper, 1992), ignoring the full range of female perspectives, and glorifying hypersexualized, female characters (Cassell & Jenkins, 1998; Rehak, 2003; Sofia, 1998; Weinstein, 1998).

With an interest in identifying the extent to which these long standing patterns have (or have not) changed in recent years, the study reported here focuses on general advertisements featured in

home computing magazines, not the articles found in these magazines, or the games advertised, or the software featured. In light of two previous studies, findings from our own small-scale, quantitative study on advertisements featured in home computing magazines are discussed and analyzed. The authors were interested in whether findings from 1997 and 1998 were still applicable in 2003 and 2004, and if not, how had the situation changed? Post-feminism argues that gender issues are supposed to have been solved, but by finding out 'what is going on', we can make an informed decision about whether this statement is mythical or not.

Traditional Images of Men and Women in Computer Magazines

The images found in advertisements generally and in computer magazines specifically both reflect and construct hegemonic understandings of masculine and feminine identity. We thought that the portrayal of men and women in advertising would be a useful indicator that could easily be compared with previous surveys of computing magazines. As Luke (2000) argued, computing magazines – like any other media texts – are a reflection of popular culture discourses and tell us much not only about dominant understandings of computers, but also the ways in which they relate to the roles regarded as natural and normal for western men and women. Advertising routinely works to marginalize those considered to be 'other' in regard to gender construction and identity construction (Jenson & Brushwood Rose, 2003; Woodfield, 2000).

Previous critiques of the gendered nature of computer articles, advertising and imagery identifies not only the narrow understandings of masculine and feminine technological competence, but also the ways which this flows through to the extent to which girls will see computer use, computer competence, and confidence in computers as relevant to their own lives or future careers. Turner and Hovenden (1997) argued that if information is power, and that the distribution of the tools of information processing influences the distribution of power, then by excluding women from computer advertisements (or portraying them in a subjugated way), women are in fact also excluded from being able to access distributed information, therefore from gaining access to power (Turner & Hovenden, 1997, p. 61). Myers (1986, cited in Turner & Hovenden, 1997) claimed that the portrayal of women in advertising was a subjective tool to keep women in their place, that is, in the private or domestic space.

Advertisements that are directed mainly at men (and to particular sub-categories of men), through their exclusion of women, communicate a subtext that 'computers are for males'. As Weinstein (1998) argued:

> By portraying only men as actively engaged with the technology, an identification is established in which masculinity becomes the engagement. But these ads also interpellate their audience as male by the use of women as passive objects (p. 88).

The projection of women as passive objects sends a message that women are incapable and impotent users of computer software and hardware.

Turner and Hovenden (1997) presented findings of a study of one home computing magazine - *Personal Computer World* - where they had analyzed three years of its publication. They combined both qualitative and quantitative methods to analyze and decode the advertisements. Here, we present a brief overview of their study, as a starting point for the study being reported and the discussion presented here.

The magazine advertisements of *Personal Computer World* (UK) featured computers, hardware manufacturers, retailers, and software houses. Turner and Hovenden described the number of men, women, and parts of bodies ascribed to genders, the numbers of 'large' and 'small' pictorial advertisements, and the attitudes and roles of women pictured. There were few ads that had positive images of women and many pictured confused and confusing women, bitchy and difficult women, or women as defaced, sexual objects.

In contrast, they found that the men represented were working and powerful. Usually, the men were positioned higher or bigger than the women in the pictures. Boys and dads (or boys only) were the focal point, while mums and sisters (or dads) looked on as the males used the computers. Males appeared relaxed, confident, and engaged with their work in contrast to women who tended to be demonstrating products to the viewer.

Turner and Hovenden (1997) claimed that women were mainly portrayed as a decoration in the visual image of the advertisement, or only performing mediocre tasks by themselves, or in a subordinate position of power when pictured with males. In their study, many of the advertisements seemed to appeal to men as the main purchasers of equipment and as having the most interest in the computer market. Additionally, many of the women pictured did not appear confident (in facial expression and body language) and did not have status or power within the scenario portrayed by the advertisement. They concluded that:

> The computer industry does not appear concerned with the portrayal of women in computing advertisements and the potential influence this has on the way women view themselves and are seen by men in relation to computer technology (Turner & Hovenden, 1997, p. 70).

Weinstein's (1998) qualitative study focused on advertisements found in the home computing magazines of *PC Home Journal* (USA) and *Amiga World* (USA) (dates of publications not stated). He focused on deconstructing four advertisements that clearly linked computers with gender.

From his general findings, Weinstein concluded that the gender constructs evident in the advertisements were geared towards the reader who was constructed as male, white, and white-collar (typically those in a managerial role). Weinstein also found that males of all ages dominated the advertising pages, agreeing with Turner and Hovenden (1997) that these advertisements not only excluded women, but constructed technology differently for men than for women. Weinstein concluded that for men the computer is a tool that enhances their power, and for women it is a machine that possesses the skills they lack. Weinstein claimed that the message found in these advertisements was that women are feeble-minded and "lacking in technical know-how" (1998, p. 99). Weinstein believed that advertisements in home computing magazines promised further marginalization to women, and that even when women were constructed as the readers, or as the targeted market of the magazine, they were not shown using the technology.

We wondered whether females would be shown using the technology in a positive manner when we examined more recent Australian and New Zealand home computing publications. We believe that publications from the U.S.A., Canada, U.K., Australia, and New Zealand represent a

similar cultural milieu in that while these countries have distinctly different cultures, they can arguably be grouped together as western culture. We wondered whether Weinstein's conclusions were still current in today's home computing publications in western culture and whether examples of voyeurism and marginalization were occurring, while also querying whether women had a greater presence in the pages of home computing magazines. We also wondered how the role of experts would be portrayed and by whom? As it is almost a decade since these two studies were published, and computers have become everyday tools at work and at home, there is reason to think that the situation may have changed.

Why is this Significant?

Luke (2000) suggested students learn to question advertisements found in computer magazines; she saw this skill as part of a new critical literacy she dubbed 'cybercitizenship'. This could involve examining advertisements in regard to the targeted market, discussing the emotional appeals the text and pictures may have, and determining what kind of social environment was being created. She also suggested investigating who the users were, and why they were predominantly white and middle-class, marginalizing those who are 'other'.

In 2002, of all Australian enrolments in undergraduate courses in information, communication and computer technology (ICCT), only 24% were female students. This statistic has remained low, not having increased since 1991 (Newmarch, Taylor-Steele & Cumpston, 2000; James et al., 2004). Other studies have discussed gender-based disparities in university ICCT courses and suggested possible solutions (Teague & Clarke, 1996; Von Hellens & Neilsen, 2001), as well as in American higher education (Bennett, Hsi, Lake & Moore, 2000).

An issue that is both current and pertinent in Australia discusses the persistently low numbers of females who choose to study ICCT as undergraduates. The persistent pattern, evidenced by these statistics listed above, warrants researchers to look at the broader discourses associated with computers and computing technologies. We can argue that this field is still characterized by overtly masculine and often sexist beliefs and textual practices. One key dimension of this debate concerns the general imagery associating with popular computing literature and so it is logical for this paper to interrogate some of the common assumptions made about gender and power relations as featured in some popular computing magazines.

Australia is currently drawing close attention to the predicted shortage of information technology professionals, and this is informing a great deal of analysis of the 'image' of the computer industry. By focusing on the advertisements in computing magazines, we are focusing on one sub-set of this imagery, and one aspect of the public face of computing.

There has been a long-standing history of research which has focused on the relationship between women and technology (Sofia, 1993, 1998; Kenway & Willis, 1995; Millar, 1998; Jenson & Brushwood Rose, 2003). Analyzing computer advertisements in home computing magazines is one dimension of this kind of research.

Widely accepted, dominant notions of gender (hegemonic masculinity, and emphasized femininity for instance) often construct masculinity and femininity as opposites (Connell, 1987), ignoring a vast array of shared human characteristics, and traditionally valuing masculinity as more powerful (Sofia, 1993; Kenway & Willis, 1995; Millar, 1998). *Digital discourse* is

Melanie Stewart Millar's (1998) description of the power relations surrounding technological progress. Digital discourse has become the social discourse of certain computing magazines; it recreates and perpetuates the relations of power, characterized by the dominance of white, western, and middle-class masculinity (Millar, 1998). Digital discourse values and emphasizes the latest and advancing technologies. It focuses on using and updating to the newest technologies, being literate with these technologies and able to manipulate them successfully. It highlights ideals, it is a visual culture, and it discriminates against anything other than what it represents. Digital discourse "excludes those it considers other – women, minorities, the poor, the technologically illiterate – to create an exclusive, high-status masculine world" (Millar, 1998, p. 90). Within this discourse, the tendency is for power and success to be aligned with masculinity. We wondered whether this type of discourse was to be found in more recent publications, and how were males projected compared to females? Were they projected as powerful and impotent? Were they projected as experts and novices?

Methodology

For this study, we collated and analyzed advertisements from ten issues of home computing magazines – two issues of each publication. Three New Zealand publications and two Australian publications were analyzed. The data collected from these ten issues proved sufficient to establish trends within the magazines that dominate the market in these countries as these sources provided us with 517 advertisements.

Below are the names of each magazine and a brief description of the content of the publications. All of the magazines are home computing magazines. These magazines were available from a library to the public, some for free, and some were available for a two-week loan for a small charge.

- *Windows Made Easy* – marketed as "Australia's best guide to Windows". "A comprehensive look into how to get the most from Windows XP, and clearly shows what exciting and imaginative results you can achieve from your PC. The magazine approaches any topic, no matter how complicated or trivial, in a clear and concise manner without being patronizing – enabling any user, whether beginner or expert, to produce a satisfactory end result" (p. 3, *Windows Made Easy*, issue 45, 2004).
- *New Zealand Macguide* – a guide to hardware and software for Macintosh Apple users.
- *Netguide New Zealand* – a guide to Internet sites according to various points of interest (pets, cooking, space, music, shopping, etc).
- *Australian PC User* – product testing, help stations, hardware, software, game reviews. Marketed as "Australia's Top-selling Technology Magazine".
- *New Zealand PC World* – covers future and updated technology, product guides, and hardware.

In order to maximize comparability with the earlier Weinstein study, we focused on advertisements only, not articles, reviews, nor pictures within articles. We did not focus on the size of advertisements, whether half page, quarter page, or full page, etc. The magazines included few pictures of children. Where we have used the words male and female, they refer to adult males and females, unless they are specified as boys and girls (children). We did not record the ages of the pictured adults (e.g. 20's, 30+, seniors, etc.) though, this may warrant further investigation as other examples of marginalization.

Quantitative methods were used to collect the data, though a qualitative analysis was employed. We wanted to put this into perspective and as a result, we counted and listed the products that were advertised and what were in the advertisements, that is, how many featured people, were the people male or female, and lastly, how were the people portrayed? We recorded a brief description of each advertisement. In earlier studies, deconstruction occurred from a small number of advertisements, which focused on the power relations evident within the images. In this discussion, we focus on equal representation, the roles of the expert and novice, and the objectification of women. Chi square tests for equality of proportion found no difference between the frequency of portrayals of males and females.

Numbers and Percentages

Of the 517 advertisements analyzed, 387 advertisements featured products only (no people) (approximately 74.8%), and 130 advertisements featured people (approximately 25.1%). Photos of products, such as hardware accessories, were common. However, many advertisements were repeated, with the total number (including repeats) that featured people being 258. Advertisements appearing twice were counted twice because if repeated, an advertisement would arguably gain twice the exposure and impact to its market.

Of the 258 advertisements featuring people, 133 (approximately 51.5%) pictured males and 125 (approximately 48.4%) pictured females. On completion of a chi square test, the null hypothesis cannot be rejected; an equal proportion of male and female users were represented as using computers (result = 0.189, df = 1).

An analysis of each magazine and its two issues is found in Table I. The average number of pages per publication is listed in brackets beside the magazine title.

Magazine Title	New Zealand Macguide (130 pgs)	Netguide New Zealand (129 pgs)	New Zealand PC World (139 pgs)	Windows Made Easy (Australian) (100 pgs)	PC User (Australian) (134 pgs)
Number of advertisements	68	167	69	17	94
Number without people	51	122	128	6	80
Number with people	17	45	41	11	14
Number of males	19 (59%)	42 (48%)	38 (50%)	13 (41%)	21 (61%)
Number of females	13 (40%)	44 (51%)	37 (49%)	18 (58%)	13 (38%)
Total of people featured	32	86	75	31	34

Table I – Summary of Magazines

Equal Representation

These publications vary as to the number of images of males and females present in advertising depending on whom they have constructed their market as. *Netguide NZ* and *NZ PC World* had a very similar amount of male and female images within advertisements. The *NZ Macguide* and *PC User (Australian)* had a disproportionate number of males featured over females, that is, males dominated the images presented within advertisements. Overall, a fairly equal proportion of male and female users were represented as using computers (in contrast to Turner and Hovenden and Weinstein's studies which both found males dominated the pages), but we were also interested in how they were portrayed.

The predominant ethnicity of people was white European (as found by Weinstein, 1998), or people of European descent. Almost 95% of those persons featured in computer magazine advertisements were white Europeans. This does not reflect the ethnic diversity found in both Australia and New Zealand, nor other western cultures such as the U.K., Canada, and the USA.

One advertisement featured the cast of Star Trek (in *PC User*) and due to the nature of this program (science fiction) the ethnicity of the characters was a subjective interpretation. The ethnicity of these characters was not included in the analysis.

If it was uncertain what ethnicity a featured person or image was we assumed the person or image to be white European, because they were not marked as 'other' to what was represented as dominant.

Ethnicity	**Frequency (percentage)**
White European	233 (94.71%)
Maori or Pacific Islander	4 (1.62%)
South East Asian	5 (2.03%)
African American	3 (1.21%)
Latino	1 (0.4%)

Table II – Frequency of Ethnicity

Table II confirms that the dominant discourse within home computing magazines is that of *digital discourse* (Millar, 1998), which privileges white Europeans.

The Expert Role

There were six advertisements that projected men in a powerful, expert role (4.6% of all ads that featured people, 6/130). There were only two advertisements that projected women in a powerful, expert role (1.5% of all ads that featured people, 2/130). In these images, the people in a powerful, expert role were using computers as a tool to enhance their power (Weinstein, 1998) and appeared to be like those with a lot of status in a company (e.g. chief executive officer, marketing manager, etc). In the general field of computer use, expertise is associated with technological confidence, independence, mastery, and authority. These traits tend to be aligned with masculinity in contrast to how images link women and computers, which show women as passive or purely decorative with their interactions with computers. Imagery associated with powerful expertise is closely aligned with males who are powerful because of the knowledge and expertise associated with their technological skill (Weinstein, 1998). Indeed, the word *mastery* is gendered in the English language as masculine.

Two advertisements featured men using computers while women looked on from behind their shoulders. The women were in an observer's role while the men were doing the work or activity. Few images showed females using computers or software in a focused manner deemed to be 'in control' or actively engaged with the technology. Many images presented women using accessories such as digital cameras in a fun, easy way, which arguably suggests to female readers that, "these accessories are not too difficult to learn how to use and your life will be improved by using these accessories".

The Australian publication *Windows Made Easy* seemed to be directly appealing to females who were novice computer users. This publication featured many photos of women, and few men. *Windows Made Easy* marketed itself as "a magazine solely dedicated to the novice". Women regularly featured on the covers of these magazines, but one of the advertisements for subscription to the magazine, featured a man reading a *Windows Made Easy* magazine with a woman on the cover of the said magazine. However, photographs of women were featured regularly throughout the publication, with little, if any photographs of men. Of note, of the nine writers of *Windows Made Easy*, eight, plus the editor, were male. The amount of women portrayed in this text does not reflect a positive frequency of women in terms of statistical analysis, because this text is designed explicitly for novices. This presents a fairly impotent and naïve construction of the female reader. In addition, the assumption that novices are women is notable for its stereotypical generalization, but arguably not its accuracy.

Objectification

Most advertisements featuring people were of an indeterminate nature, meaning that there did not seem to be a message being promoted. Few hypersexualized images or images of power were used. Almost all of the images did not possess any particular quality or reveal a particular attitude or feeling, unlike Turner and Hovenden's (1997) study which found images of confused, difficult, and bitchy women. Many images of women and men did not actually show what they were doing or what role they had or what attitude they held. Many photos were of smiling customers, and many photos showed people looking at computer screens with a concentrated, though not puzzled or confused look on their faces. However, one could argue that these faces did not show anxiety.

Many of the photos did not reveal whether the observer was a teacher, learner, or supervisor. Of all the advertisements, six advertisements used women's bodies to sell equipment, for example, they focused on breasts, limited attire, or hypersexualized images of women. This amounts to 1.1% of all ads (6/517), or 4.6% of all ads that featured people (6/130). So, the notion that 'sex sells' is still applicable, but this suggests there may be a decrease in the number of hypersexualized images that objectify females. One hypersexualized advertisement featured a slender woman with large breasts wearing only a cheetah-patterned bikini. The advertisement was advertising Cheetah ADSL Broadband from Ozzieweb and the slogan written write beside the woman's head was "C'mon . . . turn me on!" The woman was standing in a provocative pose. The image of the woman included head, shoulders, torso, and pelvis, cutting off at the bottom of the bikini. The advertisement was a full A4 page advertising Hi-speed Internet, and unlimited download from $69.95 per month. A young, smiling man held a hand-sized radio in one part of the advertisement, which advertised a free radio with each ADSL connection. This image of the man only included head and shoulders. This advertisement was only featured once in one publication – *Windows Made Easy*. Perhaps it was not repeated because one could speculate that it did not appeal to its mainly female (heterosexual) market?

The fact that sexualized imagery still exists after approximately 20 years of inappropriate gender portrayals in advertisements is more significant than the fact that there are not many hypersexualized advertisements. Nonetheless, we acknowledge that our findings infer and suggest inappropriate gender portrayals, rather than conclusively stating these findings as generalizations.

Conclusion

So, what we have found demonstrates that the nature of advertisements found in home computing magazines has changed from what it was in the mid to late 1990's. While there continue to be incidences of hypersexualized female images, this is a very small proportion of what can be found in magazines, though a notable representation. More common are the images of women in novice or impotent roles. The prevalent image of women seems to be a passive one, which suggests women have little agency or autonomy in relation to computer use. This is communicated in different ways, now, through the provision of whole publications that are 'dedicated' to the novice, synonymous with the female market.

The data confirms that the populist understandings of gender are present in modern home computing magazine advertisements. However, depending on the magazine, a disproportionate number of males over females may be represented, or stereotypes of women as novice computer users may be depicted. Though we were dealing with a small number of advertisements that are explicitly 'gendered' in the ways that the advertisements discussed in the earlier studies were, the low percentage is still significant because it shows the persistence of patterns of gendering. Although there are changes in the structure of the advertisements from earlier studies, there is no significant change in the advertisements that explicitly include women as experts. Notwithstanding, it must be said the inferences made from the small percentages of advertisements are indeed simply suggestions.

Despite the fact that the predominant advertising is not obviously an extension of gendered discourses (Weinstein, 1998), we can conclude that gender construction is still a feature of computer advertising, reflecting a propensity for males to be considered experts, while females remain impotent. Slightly more males than females were portrayed as experts. This suggests more research needs to be conducted as to why males are perceived as experts instead of females (Johnson, 2004), what factors contribute to these constructs, and also exhorts us to continue to challenge the symbolic violence (Bourdieu, 2000) that connect constructions of power, masculinity, being 'white', and being an expert.

Gendered advertising in computing magazines may just be one contributing factor that influences both young males and females in their choices made in their educational and employment pathways. Stereotypes of women and computing will remain the same unless the public face of computing is changed (Bennett, et al., 2000).

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