Recent attention to gender equity in computer environments, as well as in print-based and televised advertising for technological products, suggests that gender bias in the computer environment continues. This study examined gender messages within World Wide Web advertisements, specifically the type and number of visual images used in Web banner advertisements, gender roles depicted within them, and whether these advertisements contribute to the established stereotypes regarding roles of computer users. The Internet sampling was done on a Power Macintosh computer using Netscape Navigator, version 2.0. Over 50 banner ads were selected from topical pages in the five search engine services available with Netscape. Most of the visual representations of women in Web advertising are a reflection of current trends used in other media. The ads tend to depict women in supportive or subordinate roles. Consistent with other commercial advertising formats, males were found in the leadership and authority roles, while females were generally portrayed in more passive roles. When women were the only individuals in the advertisement, the ad copy usually reflected a biased message toward the abilities and function of the women in their roles as professionals. Educators can play a significant role in the process of promoting gender equity in advertising by exposing the practices in society that are biased, especially those related to computers. Sixteen figures offer sample advertisements. (Contains 18 references.) (AEF)
Gender Equity in Advertising on the World-Wide Web: Can it be Found?

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Abstract

Advertisers are taking advantage of the relatively low cost and great exposure of the Internet. The proliferation of advertisements on the World Wide Web (WWW) attests to that. Recent attention to gender equity in computer environments as well as in print-based and televised advertising for technological products suggests that gender bias in the computer environment continues. This paper examines gender messages within WWW advertisements. The authors show that advertisers carry the same gender stereotypes from old media into the new WWW environment, thus perpetuating the chilly climate for women into yet another territory.

Computer technology offers great potential for human empowerment. It influences every aspect of our daily lives; touching our work, home, and school environments, as well as our entertainment delivery, and communication patterns. More and more people have access to an unlimited and constantly updated global information resource which carries with it the edge over others who do not have such access. This can be particularly influential on educational and employment opportunities. The personal, social, and economic power offered by the information age affects the worldwide spectrum of humankind more than any other industrial or technological advance in modern history. The effect of computer technology on education alone has been remarkable. It provides more than just a new way of teaching; it has become an essential part of educating students in life skills necessary for post-school living (Naron & Estes, 1996).

"Madison Avenue" marketers may consider themselves to be working in the best interest of American society by targeting computer technology sales to the upper socio-economic white male, the stereotypical computer buyer and user (Lockheed, 1985; Sanders, 1985; Wilder, Mackie, & Cooper, 1985). But unless computer technology is distributed across all levels and subgroups in American pluralistic society, it may further enhance the inequities that exist among cultural subgroups (Campbell, 1985; Fisher, 1984; Hawking, 1985). Several scholars have investigated equity in advertising does not exist in the media, especially in the area of technology. While gender stereotypes have evolved over the years, televised programming and advertisements still perpetuate a code that identifies feminine and masculine characteristics, with women depicted as feminine and showing their beauty, grace, style, and sexual attractiveness, while men are associated with the outdoors, sports, cars, relaxing, or entertaining at home (Rutherford, 1994). Further, this stereotypical ideology has spread into the advertising that is associated with computer technology, depicting men as high-powered computer users while women are portrayed in subservient roles or even as sexual decorations in computer advertising (Knupfer, 1996). Even the clip art imagery used in the large majority of popular business and educational software perpetuates this stereotype, with males depicted in leadership and authority roles, while women are depicted in subordinate roles (Binns & Branch, 1995). Thus the software itself is permeated with subtle gender bias.

In particular, advertising does not provide for the development of female-computer or minority-computer identities despite the fact that significant numbers of females and minorities are now employed in the technological field, and many more use microcomputers in their jobs or hobbies. Microcomputers are no longer the private domain of the white male, nor should they be. Advertisements in all media should equitably represent the various computer users in a manner that is free of language bias and gender stereotypes. Further, because of the potentially high level of individual empowerment associated with computer technology, the advertisements should represent the racial, cultural, and gender subgroups of society.

Studies on computer magazines read by adults reveal that these magazines reinforce stereotypes by repeatedly providing the message that computers are for white males, that females using computers should be in clerical or other subordinate jobs, and females are sex objects to be used as attractions to advertise computer products. As these messages are reinforced over and over again, they may become so internalized that they are passed on from...
adult to adult in general attitudes and employment practices, and from adult to children in communicating individual

This prevailing message of gender bias in visual messages and stereotyped advertising has made its way to the newest advertising media, that of electronic advertising on the World Wide Web (WWW). Now the persuasive and biased nature of advertising has the ability to reach a larger audience, reinforcing the stereotypical vision of computers as male domain to the masses. Further, because of increased use of the WWW in schools, this message permeates the boundaries of that protected environment as it goes beyond the home and workplace, into the educational system as well. We must then question how much this will affect educational opportunities for females as well as their resulting employment potential.

Students receive daily cultural cues that reinforce the stereotype of computers as a male domain. Such cues come from a number of sources including peers, parents, teachers, television, movies, magazines, and literature. One source of the cues that has given rise to such stereotypes may be the very images that the computer displays, including WWW banner advertising. The images presented may reinforce a particular stereotypical view about gender roles related to technology and to life in general.

Purpose

The purpose of this study was to extend previously reported research on gender equity in computer advertising by examining the advertisements used in the new WWW medium. The study examined the type and number of visual images used in WWW banner advertisements, gender roles depicted within them, and whether these advertisements contribute to the established stereotypes regarding the roles of computer users.

Web banner ads are 1" x 7" in size and are interactive graphical links to specific or related advertiser's websites. They reside on search engine pages that provide links to specific information available on the WWW.

Earlier studies have shown that a major source of images, computer clip art, routinely under represents women and minorities in both numbers and roles (Binns & Branch, 1995; Brownell, 1993; Brownell & McConnaughy, 1990; Brownell & McConnaughy, 1991). The majority of clip art perpetuates stereotypes based on cultural, racial, and gender stereotypes by neglecting minority populations and by depicting men and women in limited roles. Men are typically depicted in leadership and authority roles, while women are depicted in subordinate and nurturing roles (Binns & Branch, 1995). Men are shown in work situations or using technology, and women are portrayed as either older and overly-grandmotherly, or young and overly-sexy.

Other studies have shown that in both print and video, which shapes the advertising marketplace, most advertising tends to depict women in stereotypical roles. Women, when featured in advertising, tend to be represented in select feminine roles such as wife, mother, nurse, teacher, or secretary. Studies of the illustrations in popular computer magazines report that men have had the feature role (Sanders, 1985; Ware & Stuck, 1985). Women appearing in these same computer magazine illustrations were sometimes depicted as sex objects while men were never shown as such.

Local and national political leaders, educators and parents often see technology as the major answer to improvements in education. They frequently claim that by offering greater access to information and computer technology that children will do better in school and in life. If used properly, Internet technology as a learning tool can be beneficial in education. But at the same time, it opens a door to a world in which gender bias and stereotypical attitudes prevail as a norm. Although great strides have been reported concerning equity, studies of current practices indicate a serious problem still exists (Binns & Branch, 1995; Couch, 1995; McCormick, 1994).

Method

The Internet sampling was done on a Power Macintosh computer using Netscape Navigator, version 2.0. Banner ads were selected from topical pages in the five search engine services available with Netscape. Specifically, the study employed the Excite, Infoseek, Lycos, Magellan, and Yahoo search engines. Banner ad site selection was done by random sampling from the web over several months because of the periodic changing of the advertisements and the likelihood that the ads would be repeated in given topic areas of sampling. Table 1 lists the topic and subtopic headings common to the five search engines used in the study.
Table 1. Topic and Subtopic Headings of Common Search Engines

<table>
<thead>
<tr>
<th>Arts &amp; Humanities</th>
<th>Computers</th>
<th>Environment</th>
<th>News</th>
<th>Recreation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td></td>
<td>Food</td>
<td></td>
<td>Society</td>
</tr>
<tr>
<td>Career</td>
<td>Computing</td>
<td>Government</td>
<td></td>
<td>Community</td>
</tr>
<tr>
<td>Employment</td>
<td>Software</td>
<td>Elections</td>
<td></td>
<td>Daily Living</td>
</tr>
<tr>
<td>Investing</td>
<td>Technology</td>
<td>Politics &amp; Law</td>
<td></td>
<td>Pop culture</td>
</tr>
<tr>
<td>Money</td>
<td>Education</td>
<td>Health &amp; Medicine</td>
<td></td>
<td>Roads Less Traveled</td>
</tr>
<tr>
<td>Real Estate</td>
<td>Colleges</td>
<td>Kids</td>
<td></td>
<td>Social</td>
</tr>
<tr>
<td>Small Business</td>
<td>Entertainment</td>
<td>Mathematics</td>
<td></td>
<td>Spirituality</td>
</tr>
<tr>
<td>Communications</td>
<td>Games</td>
<td></td>
<td></td>
<td>Travel</td>
</tr>
<tr>
<td></td>
<td>Movies</td>
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</tr>
</tbody>
</table>

Random sampling was conducted on sites in each of the five search engines until a minimum of 10 different banner ads were found. Not all topic headings in any specific browser were used in this study due to time constraints and the size of the population. Ads only with gender specific illustrations or graphics were selected as part of this study, thus those ads that did not depict people or depicted people in such as way as to make gender indeterminate were not used. Over 700 search page sites were visited while gathering over 50 banner advertisements for review. Electronic snapshots were taken of the banner ads and web-site location to preserve the ads intact for this analysis. Qualitative analysis of the advertisements was applied, based upon what was found.

Findings

Most of the visual representations of women in WWW advertising is a reflection of the current trend used in other media. The ads tend to depict women in the supportive or subordinate role. Consistent with other commercial advertising formats, males were found in the leadership and authority roles, while females were generally portrayed in more passive roles. When women were the only individuals in the advertisement, the ad copy usually reflected a biased message toward the abilities and function of the women in their roles as professionals.

A series of advertisements for used for AT&T WorldNet Services serves as a fundamental example of bias depictions in Internet ads. All of these AT&T ads were found under the same major topic heading, Education, in the Yahoo search services.

In Figure 1, the placement of the woman illustrated in the ad is one where she is juxtaposed behind the male figure next to her, giving the appearance of a supporting role to her and the leadership role to him. If their positioning were reversed, a different message would be illustrated regarding the role of both the man and woman on the right side of the page. The woman would be perceived as to being in the leadership role or in equal partnership to her male counterpart. It would appear that this ad provides a gesture of acknowledgment of women working with technology, but in a deliberate and assigned supporting role. The ad would present a different meaning if it showed only the woman in the illustration on the right. If the ad only showed the male illustration, there would be no change in the message conveyed.

Figures 2 and 3 are the only advertisements in which women only were illustrated. But they were not depicted in a working or professional manner, as opposed to their male counterparts in Figure 4. The women in Figure 2 appear to be dressed in a professional manner, but their body language indicates a more relaxed setting, talking on the telephone over a cup of coffee while reading a report. Also, one does not get a complete sense of where these two women are located. Are they at their office desk or at home? On the other hand the two males illustrated in Figure 4 give a feeling of personal contact in a meeting situation. The attire of the two men is casual but not uncommon for some professional settings.

A key feature of hidden bias is in the ad’s copy. The conversations between the two individuals illustrated in each ad conveys different meaning associated with their gender roles. The conversation of the men in Figure 4 is focused on a theme of authority, focused on the concepts of money and control. But the conversations between the women in Figures 2 and 3 are focused on more nurturing themes of security and responsibility. In Figure 3, the message regarding “provider” would be lost or completely misunderstood, if there was not some indication in the ad about Internet services. There are no other cues from the women illustrated to indicated their function or role in the use of technology.
hi, my name is TIM and I can't get on the INTERNET. TIM...
If the gender was changed on these illustrations would the message portrayed in the ads be different? If so, gender bias exists. The issue of bias needs to be addressed, but by who? The companies that advertise on the web, the ad developers, the copy editors who create the ads, and the web ad account representatives who place these ads in their service could play a role in perpetuating or limiting this type of advertising.

The majority of banner advertisements follow the pattern set by the more traditional media. As is evident in previous studies of magazine ads and televised advertisements, when women are portrayed as the central character, they are usually depicted by their "beautiful bodies," faceless selected parts ("bodyism"), or as sex objects. This is most prevalent in advertisements for beauty products, fashion, and fitness, see Figures 5-10.

Figures 5, 6, and 7 are typical ads that depict women. These ads are for women and they emphasize the importance of beauty, giving women the message that beautiful is better. While there is nothing obviously wrong with these three advertisements as separate entities, they combine to promote the stereotype of women as objects of beauty and sex by the mere focus of the ads themselves. The important point is the continued emphasis on beauty and attractiveness rather than achievement, wisdom, or making good choices as a consumer.
Figure 4. Two Men, Dressed Down but Clearly Discussing Business

Location: http://www.yahoo.com/Education/K_12/

Figure 5. Woman Featured for cosmetic advertisement

Look more beautiful 2 minutes from now. Ask COVER GIRL

Figure 6. Woman Feature for Style Advertisement

Find Out This Week's Hair Tip. Click Here.

Figure 7. Women Featured for Fashion Advertisement
The fitness ads also present some of the most interesting uses of gender role illustrations. In Figure 8, the woman’s body is used as a graphic element of text. The concept itself is not new, nor does it seem biased in its use until we look at the illustration’s interaction with the other elements of text and color. The placement and color of the text “The,” draws the viewer’s eye to the illustration of the woman’s body making the shape of the letter “F.” But, at the same time it denotes demeaning sexual connotations to the graphic illustration of the woman. The word “The” is red, and its last letter ends up in the woman’s crotch.

Figure 8. Woman’s Fitness Ad with Body as a Graphic Element.

Figure 9 shows part of a man’s torso, left shoulder, and arm. The emphasis is on strength. Figure 10 does a good job in providing a balance of both male and female illustrations advertising the concept of fitness, but the way in which the bodies are posed conveys two different messages. The male image portrays strength and the female image suggests sex appeal. Are all men to be strong and all women to be sexy if they are physically fit? Does strength translate into male sexual appeal? Although the importance of facial characteristics and general body structure is absent from the male side, the fitness ads do suggest that big muscles are important for men, thus continuing the physical stereotype for males as well. The difference between the male and female ads is that the large majority of male ads do not focus on the physical features.

One gender-specific “bodyism” found in Internet advertising and web page graphics has been the use of eyes. Use of the eyes as an illustrated or graphic element in advertisements seems to be feminine in composition, see Figures 11 and 12. Color plays a major role and how it is used can be appropriate or abusive. In Figure 11, the photo illustration of the eyes works well as a supportive graphic element, but use of both a different color and font for the word “sex” changes the intended message of the ad from a “helpful resource” to “sex.”

Figure 9. Man’s Fitness Ad with Musculature “Bodyism”
Figure 10. Fitness Ad Featuring Sexiness for Women and Strength for Men

Wired for Fitness
Click Here  http://www.fitnesszone.com
Recording the location of the sampled banner ads was important in observing a relationship of gender-biased placement of ads within the Internet. Ads are located under selected topic areas and target specific audiences. Gender-specific illustrations, especially in the areas of technology and business do not work well in trying to target other audiences. Figure 13 targets a male audience for financial investments and it was located with the content path of shopping, then swimwear. Would the advertisers suspect that males might be more inclined then females to look at photos of people modeling swimsuits?

In other situations, repeating of particular ads in specific locations can infer additional hidden or gender-bias messages to the visitors of these topical search sites. Figures 14, 15, and 16 suggest that the male audience is the target. If so, then clearly a message of male freedom, control, or irresponsibility as well as female passivity and lack of control could be the message.

Conclusion

The WWW offers a number of exciting opportunities for advertisers to complement other forms of media, not replace them (Teague, 1995). The number of print ads in general and trade magazines, and newspapers that now include the statement “for more information call or visit our web site” is growing each day. Advertising on the Web can be comparatively inexpensive compared to the potential number of customers who would have access to your information, and will spawn a dramatic increase in its use as a marketing tool.
This study raises questions for further research regarding the use of advertising in the WWW. The first, is current advertisement targeted toward the characteristics of the majority of the users of the technology associated with the WWW? Is this audience any different than that of magazine readers or television viewers? How is the advertising the same or different? Is the representation of gender roles portrayed in the advertising media reflective of the current skills, level of computer use, and interests, of the majority of women in general or the majority of women who currently use the WWW? What is the fallout of the current gender bias practice in advertising on the WWW; how does it impact the development of gender stereotyping in the field of computer technology today and in
the future? How can the growing technological marketplace of the WWW be used to bring about change in stereotypical views? How can teachers counteract some of these message stereotypes that students are sure to encounter while using the WWW in school? How does one start to educate the teachers to recognize gender bias in the ads? Can that be done or are people so used to living with it that it becomes invisible, even in this new format? In addition to education, what is needed to break the continuing gender stereotypes that our culture perpetuates through advertisements?

Educators can play a special role in the process of promoting equity in advertising. They provide the quality opportunities for students to learn regardless of race, culture, or gender. Educators must expose the practices in society that are biased, especially those related to computers as computers and access to information continue to gain importance. They can provide research on the problem, attempt to bring about change in the classroom and publicly. They can help to educate parents, who have such great influence on their child's view of gender roles. Education can be a potent force in combating the issue of gender bias in advertising and bringing pressure to bear on business to be attentive to these problems. But ultimately it will be the moneymakers, the people who make and distribute the advertisements, who will need to pay better attention to issues related to blatant and subtle gender equity and potential opportunity.

References


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