Crossroads
The ACM Student Magazine

Computer Game Marketing Bias

by ***Melissa Chaika***

In our increasingly technology-reliant society, riding a political wave of market deregulation, computer-related industries are booming at record rates. Telephony is merging with cable, which is merging with computer companies, which are merging with gaming industries. No entertainment medium remains unaffected by the others, and this rapid consolidation continues to create new industries.

The gaming industry, grossing several billion dollars annually, is no exception to this growth [**8**]. What were once arcade games, **Atari** home gaming systems, and simple toys on **Apple** II Plus computers are now super-realistic virtual simulations, in some cases using advanced CD-ROM interaction capabilities in conjunction with the large-memory potential of powerful home computers.

However, a large portion of the population has been excluded from the action in this gaming boom. Most available video and computer games are created and marketed for boys. Some major competitors are beginning to create ``gender neutral'' games to target a larger market. A very few companies, such as **Girl Games**, **American Laser Games** and **Mattel**, are beginning to gamble on the consumer potential of the female gender. However, the creation of better games is not enough. The home environment is going to have to change, as are current consumer marketing strategies.

Games for boys

It is obvious why the gaming industry would begin to notice the lack of female consumers. If a predominantly male market spends several billion dollars a year on games, the potential female market should be substantial as well. According to an industry brochure:

> Girls are seen as the biggest spenders in the adolescent market. Each year young women spend millions of dollars on entertainment such as teen literary series, movies, music, fashion and magazines. In the interactive game industry, adolescents as a whole spent an estimated $1.5 billion in 1994. ... [and] 85% of young women surveyed indicated that computer games would be fun to play if more titles were designed with them in mind.

Indeed, there can be no doubt that the overwhelming majority of video and computer games on the market are tailored to boys. In order to see just how imbalanced the current market is, I visited ten Houston-area technology stores, from video rental to software shops, in order to see how many of the games depicted female protagonists and how these women were portrayed. When I surveyed the selection of **Super Nintendo** and **Sega Genesis** games available at a rental store, I found that of 259 games, only six had female characters on their covers. *Zombies Ate My Neighbors* showed a women screaming in horror but the game does not actually have a female protagonist. She only served to represent fear. Four of the remaining five pictured women from movies: ***Batman Forever***, ***The Wizard of Oz***, and *Beauty and the Beast* and *Cool World*. Only one of the games depicted a heroine unrelated to a movie. She was *Maria of Ghost Lion*, the main character in a role playing game for beginners.

A list of best-selling Sega and Nintendo titles reveals the obvious targeted market: boys. Take for example these games: *Blades of Vengeance*, ***Vectorman***, *Primal Rages*, *Triple Play '96* (baseball), ***NHL '96*** (hockey), ***Mighty Morphin Power Rangers***, ***Madden '96*** (interactive football), *Killer Instinct*, *Chrono Trigger*, and of course ***Mortal Kombat***. Few girls gravitate toward something called *Killer Instinct* or *NHL '96*.

Provenzo [**22**] conducted a more extensive content analysis of game covers. Arguing that the covers represent a visual code summarizing the game and its purpose, he based his analysis on sociologist Ervin Goffman's content analyses on the portrayal of women in popular magazines. On 47 game covers, Provenzo identified 115 male

characters and 9 female characters. Male figures predominated female figures by a ratio of 13 to 1. Twenty males stood in dominant poses, while a third of the women stood in clearly submissive poses. Furthermore, thirty percent (13 of the games) contained scenarios in which women were kidnapped and needed rescue.

Marketing

Indeed, the gender gap in computer games can be blamed in part on the computer industry which has traditionally geared electronic entertainment towards a predominantly male market. The problem is not as simple as this, however. If it were merely a matter of high demand without supply, basic economic theory tells us that games for girls would have been produced a long time ago. The reality is that a number of factors, some of them market related but many of them social, perpetuate the gender gap in electronic entertainment.

Home environment is a large contributor to the problem. Lockheed [**16**] found that while 50 percent of boys questioned had access to computers at home, only 22 percent of the girls surveyed had such access. The girls who did have access in the home were less likely to utilize that opportunity. Perhaps if the girls had access to something fun or useful to do on the computer, they would be more likely to use it.

Inequities also exist in the qualitative as well as the quantitative use of technologies. Within the home, the males are more likely to make decisions regarding the computer, such as which one to buy, and are likely to feel responsible for bringing it into the home. The females in the home are less inclined to use the computer, and mothers are likely to feel estranged from the rest of the family on technological issues [**9**]. Even software bought for female children is likely to be chosen by brothers and fathers, and not by the girls themselves or the mothers .

The actual consumer market for games for girls, then, may be fathers and brothers, and not the girls themselves. Since girls are frequently not choosing which games they play, producers cannot easily market games for them. If brothers choose the games, the product must appeal more to the boys than to the girls. If fathers choose the game for the girl, again the game must appeal to the fathers. Though girls may be the potential game-playing market, brothers and fathers appear to be the potential buying market for games for girls. As a result, it may be necessary to package games as education (to appeal to the fathers) or as adventure (to appeal to the brothers) in order to sell the games girls would want to play once they own them.

Packaging

Marketers obviously understand that electronic activities for girls need to be packaged very differently from similar packages for boys. Consider the different computer game genres: action, strategy, arcade-style and so forth. In computer stores, these genres are always stored close-by, if not together. Generally, across the store on different shelves one can find educational (or, popularly called, Edutainment) software, a completely separate genre altogether. These packages technically have an educational goal rather than a purely entertainment-based goal.

I walked into the various computer game stores asking to find an appropriate game for my 12-year old niece, and the salesmen (everyone selling games I encountered was male) inevitably showed me all sorts of entertainment genres and then said that I could also give her an educational toy. In other words, retailers (and probably consumers and producers) envision entertainment games as separate entities from educational games.

Yet upon closer examination of the titles, I found the distinction between educational and strategy software to be quite tenuous. Card games, chess, Scrabble, Risk and particularly the **Sim** games (in which players create anything from a city to a Darwinian eco-system to a national health care policy) all have educational value. Particularly popular in strategy gaming is resource management, applied to everything from big business (for example, where you become a CEO) to complex social systems, like cities and farms [**17**]. The strategy games seem like ideal tools for biology, economics or political science classes. So why do the strategy software get marketed as and placed on shelves with other ``fun'' genres, while the educational software is stored on a separate ``good for you'' shelf? This means that activities for girls get shelved in education, reinforcing the idea that computers are tools, while boy-games get placed on the fun shelves. It also means that if a girl does want a game, she may only see male-targeted activities because the games which would interest her are on the education shelf.

The distinction between strategy and education appears to be intentional. Marketers seem to believe that girls will only want games which are educational and would not choose fun games as boys like. Or perhaps they understand that parents are the buying consumers, and parents only want education for their daughters (but they will buy fun for their sons).

The educational software did include some packages obviously geared towards girls, including the ever-popular **Carmen Sandiego** games, most notably *Where in the World is Carmen San Diego?* This geographical mystery game, originally released in 1984 on floppy-disk, has now sold more than 4 million copies and has generated a public television game show [**3**]. *Barbie and Her Magical Dream House* is one of the few widely available CD-ROM games specifically targeted towards girls. On the back of the game's case is a listing of the game's value. It lists four skills which one would practice by playing this game. So even the one piece of pure entertainment available to girls pretends to have educational value.

It appears that producers actually design girls' software differently from boys'. Huff and Cooper [**13**] asked 43 educators with programming experience to design games for either boys, girls or students and found that the boys' and general students' games were similar and game-like whereas the games for girls were classifiable as "learning tools" [**13**]. Their finding reinforces two major points. First of all, it demonstrates a mind-set that games for boys are games for anyone and vice versa, and that designing software for the general market will exclude half of the population. Their findings also demonstrate a mentality that education is for girls while fun is for boys -- clearly reinforcing girls' attitudes of technology as a tool and boy's attitudes of technology as a means for fun. Perhaps if more purely entertaining (as opposed to educational) games were targeted towards girls, the girls would be more inclined to explore the computer and to see it as a fun toy and not a necessary evil.

Girls' parents need to identify their goals in having their children play with different types of software packages. If they want their children to learn math, geography, physics, or other educational topics, then educational software is certainly a way to make learning fun. However, parents also need to understand that by only giving their girls education, they are not exposing them to the more play-oriented, creative, fun software alternatives. The long-term consequences of their decision (girls continue to conceptualize technology as a tool) may outweigh the potential short-term benefits of exposing the children exclusively to educational activities. A balance of pure entertainment -- games not containing obvious learning potential -- and education would probably be the most valuable route. Thus, until the common social environment which holds that ``girls should learn while boys can play'' changes, this imbalance in available software will likely continue. Producers will make what sells. It takes the consumers--in this case the parents -- to acknowledge the value of non-educational

fun in order to alter what is available to their children.

Creating Games for Girls

A new medium of interactive home entertainment is finally emerging. For years, the video and computer game markets have been dominated by games by men and for boys. Only a smattering of educational software was available specifically for girls. Now the lure of a multi-billion-dollar untapped market has convinced a few companies to attempt to break the tradition of male domination in multimedia. The new question arises, then, as to what these producers will create. Will they generate games which build on stereotypical notions of what girls want, based on similar-type products in other entertainment genres, or will producers instead create games which suggest other gender roles? And if producers only create educational software for girls, will their short-term goal of education only further perpetuate differences in conceptions of technology? Furthermore, what role does the production process, including the producers themselves, play in affecting girls' reception of the product and their own capabilities? Will the current technologies suffice in creating marketable products for girls? Multimedia capabilities are burgeoning at lightning rates, yet social research is years behind. The potential social impact of new technologies is tremendous; the possibilities for research are almost as great.

Acknowledgements

I would like to give credit to Ann Abel, a Rice graduate and editorial assistant with *Rolling Stone Press* in New York city. She helped me edit both my thesis and this excerpt, and certainly deserves some thanks.

References and Recommended Reading

1

Ahmad-Taylor, Ty. Studios Look to Interactive Games. *The New York Times*, (August 28, 1995), p. C1.

2

Ahmad-Taylor, Ty. Under the Hood of the New Video Game Machines. *The New York Times*, (September 11, 1995), p. C7.

3

Atwood. Software Developers Provide Education and Entertainment for Young Minds. *Billboard*, (May 13, 1995), p. 91.

4

Beck and Newton. Computing: An Ideal Occupation for Women? **Computers**

into Classrooms, Beynon and Mackay, eds. The Falmer Press, Great Britain:1993.

5

Berry, Jonathan, and Kathy Rebello. Digital Pioneers. *Business Week*, (May 2, 1994), pp. 96-103.

6

Collis, Betty. Sex Differences in Secondary School Students: Attitudes toward Computers. *Microcomputers in Education Conference*, Donna Craighead, ed. Arizona State University, March 13-15, 1985. Computer Science Press: USA. pp. 52-54.

7

Edwards. The Army and the Microworld: Computers and the Politics of Gender Identity. *Signs*, Volume 16, Number 1:1990, pp. 102-127.

8

Fryer. Games for Girls in a Gameboy World. *Working Woman*, (December, 1994), p 12.

9

Giacquinta, Bauer, and Levin. ***Beyond Technology's Promise***, Cambridge University Press, Great Britain: 1993.

10

Gillen, Marilyn. Game Makers Finally Targeting Girls. *Billboard*, (June 4, 1994), pp. 88-91.

11

Groppe, Laura. CEO and Girl Games, Inc. Founder. Telephone interview, November 27, 1995.

12

Hancock, Lyn, Nell, et. al. The haves and have-nots. *Newsweek* (February 27, 1995), pp. 50-53.

13

Huff and Cooper. Sex Bias in Educational Software: The Effect of Designers' Stereotypes on the Software They Design. *Journal of Applied Social Psychology*, Volume 17, Number 6, 1987, pp. 519-532.

14

Kiesler, Sproull, and Eccles. Pool Halls, Chips, and War Games: Women in the Culture of Computing. *Psychology of Women Quarterly*, Volume 9, 1985, pp. 451-462.

15

Linn. Fostering Equitable Consequences from Computer Learning Environments. *Sex Roles*, Volume 13, Numbers 3 and 4, 1985, pp. 229-240.

16

Lockheed, M., ed. 1985. Introduction: Women, Girls, and Computers. *Sex Roles*, Volume 13, Numbers 3 and 4; cited by Peggy Newton and Eevi Beck, Computing: An Ideal Occupation for Women? ***Computers Into Classrooms***, John Beynon and Hughie Mackay, eds. The Falmer Press: Great Britain: 1993, p. 130.

17

May. The Best in Strategy Game Software. *Compute*, (June 1994), pp. S6-8.

18

May, Scott. The Future of PC Games. *Compute*, (April 1994), pp. 87-92.

19

McQuail, Dennis. ***Mass Communication Theory***. Sage Publications, London, 1983.

20

Miller and Chaika. Using Girls' Preferences to Design Software: Insights From a Focus Group. Submitted for publication, October 1995.

21

Morley. Between the Public and Private: The Domestic Uses of Information and Communications Technologies. *Viewing, Reading, Listening*, John Cruz and Justin Lewis, eds., Chapter 5. Westview Press, USA, pp. 101-123.

22

Provenzo. ***Video Kids: Making Sense of Nintendo***, Harvard University Press, Mass:1991, pp. 106-114.

23

Shaw, Simon. Games War. *Management Today*, (December, 1994), pp. 76-80.

Melissa Chaika recently graduated cum laude from Rice University with a double major in sociology and policy studies. She conducted her senior honors research on the sociology of female-targeted computer games. This article was compiled from excerpts of her thesis. Melissa can be reached via email at: *chaika@juno.com*