



A Vehicle for Social Change

At this point in history, videogames have reached a point in its maturity where huge industries rule the market and mainstream tastes dictate the design of videogames. As the videogame market has developed, the industry has transformed the innovative electronic laboratories that created original games such as *Adventure* and *Space Invaders* into factories of concept reiteration. The economics of today's marketplace restrict large companies from risk taking and instead encourage the maintenance of their already loyal market and audience. Theoretically, subversive ideas about videogames are immediately squelched by the greater economic forces. However, with the birth of the internet, dissident ideas gain momentum with very little cost and the support of formerly isolated and marginalized communities. In this world of interconnectivity – every action produces a thousand more reactions both expected and unexpected. One such reaction has been against the gender bias of videogames.

Historically, computer science and correspondingly videogames have been a male dominated industry. Thus, its no surprise that games created by male designers “based on their own tastes and cultural assumptions without considering how these approaches might be anything other than gender neutral” appeal to a relatively narrow sector of the population (Cassell and Jenkins 25). As a result of the complexity of feminist theory and perceptions of sex, a number of girls’ game movements have developed in reaction to the gender bias in videogames.

One design philosophy posits that girls’ interests are in direct opposition to traditional boy culture. Based on extensive market research, these games cater to the current state of girls’ tastes; tastes that have arguably been shaped not only by

the natural inclinations of some girls but also by the socialization of girls through the advertising industry (Cassell and Jenkins 19). *Barbie Fashion Designer* is one of the most successful girls' games that utilize this strategy. Built upon the institution of Barbie as a fashion icon, players create customized paper clothing and accessories for their dolls. This game succeeds in appealing to the mainstream perceptions of girlhood. Recent developments in the second wave of feminist theory celebrate the



differences between the genders and seek to elevate traditional girl's interests. By equalizing the respect accorded to traditional boys' and girls' characteristics, feminists seek to recognize the validity of traditional girls' roles. Within this context, *Barbie Fashion Designer* can be considered a feminist game by confirming a girls' interest in personal beauty.

Purple Moon games such as the *Rockett's Adventures* series and *Secret Paths* are games that follow a similar design viewpoint. Although these games offer a much more complex game space, they still cater very specifically to traditional girls' needs. These "play spaces for girls adopt a slower pace, are less filled with dangers, invite gradual investigation and discovery, foster an



awareness of social relations and a search for secrets, center around emotional relations between characters. Both allow the exploration of physical environments, but are really about the interior worlds of feelings and fears" (Jenkins). With their all-female casts, these games are as unlikely to attract boy game players as *Barbie Fashion Designer*. These "friendship adventures" support preexisting stereotypes about females. However, feminism isn't only about celebrating the identity of women as it already exists.

As a consequence of reaction engendering reaction, the game grrlz movement (evolved in parallel with the riot grrl movement) called women to action to appropriate and exploit traditional boy characteristics. Quake Grrls are the most vocal proponent of this perspective. These women, show that they can be just as tough as the boys by “fragging with the best of them” in all female Quake clans (Poole 145). In this traditionally masculine fighting game, Quake women show that they take pleasure in being more than just a girl. According to Henry Jenkins (“Complete Freedom of Movement: Video Games As Gendered Play Spaces”) and Gerard Jones (*Killing Monsters*), this action and aggression are essential to developing the confidence needed to succeed and be heard in today’s society. These women show an attitude alternative to the one presented in Mattel and Purple Moon games. Unfortunately, this more traditional form of feminism within videogames has been focused toward women in their mid-teens to late thirties who are already self-confident and mature enough to break gender barriers. Younger girl gaming culture was limited to the second wave feminism mind-set of *Rockett’s Adventures* and *Barbie Fashion Designer* until the development of *The Adventures of Josie True*.



The Adventures of Josie True emerged in mid-1999 amidst the feminist backlash against traditionally masculine videogames. This online flash-based game is the brainchild of Mary Flanagan, “media practitioner/theorist who investigates the intersection of art, technology, and gender study through critical writing, artwork, and activism” (Flanagan). Flanagan initially worked as a producer and designer of interactive educational software at Human Code Inc. Through her work for Discovery Channel Multimedia, she became frustrated with developing games geared only toward the default market i.e. the boys’ market, and decided to move into academia where she would be allowed to take more risks (Willdorf). During her time at the University of Buffalo, Flanagan received a \$190,000 grant from the National Science Foundation to develop *The Adventures of Josie True* in conjunction with a multimedia internship program of 15 students (Klinck).



The Adventures of Josie True was developed in response to the absence of “electronic media toward girls [focused] on educational material” (Flanagan). The game is centered around Josie True, a Chinese-American girl on a quest to find her missing science teacher Ms. Trombone. Her journey takes her on a trip through 1920s Chicago and Paris where she meets historical figures such as Bessie Coleman, the first African American aviator. By playing science, math, and engineering games, Josie collects objects that allow her to move on to the next level. Funded by the N.S.F.'s Program for Gender Equity in Science, Math, Engineering, and Technology, this online game, developed using Macromedia Flash, is available online free of charge and on CD-ROM for \$10.00. Although it was created as a game for girls, it manages to succeed as a positive game for boys *and* girls. Unlike the commercially developed girl games, *Josie True* presents an image of girlhood more congruent with a more traditional form of feminism that “struggles to break down univocal conceptions of gender and open a space for many ways of being masculine and feminine” (Cassell and Jenkins 27). Flanagan recognized the need for unprivileged groups to gain access to the technological skills essential to modern day success. Consequently, this game also strives to banish the racial and economic inequities of videogames. *The Adventures of Josie True* is a revolutionary vehicle for social change in videogame design.



Josie True empowers girls without separating the girls' play space from the boys' play space. The most obvious proof of this comes from the aesthetic of the game. Drawn in bright, bold, primary colors, the game stands in marked contrast to the pinks and purples of *Barbie Fashion Designer* and the “subtle and inviting colors” of *Secret Paths* (Jenkins). This gender neutral aesthetic approach extends itself to Josie's orange t-shirt, blue jeans, and red sneakers. By maintaining a gender neutral appearance, Flanagan invites girls and boys to play together within the world of *Josie True*.

Adventures combines elements of the traditionally adventurous boys' play spaces with the more domestic and reflective girls' play space. When Josie receives the note about the missing Ms. Trombone, she immediately hops on her bike and zooms past her father and grandmother. This ability to independently and confidently venture out on her own breaks into more traditional boys play culture as defined by Jenkins. In this brief moment, girls and boys can learn to experience "complete freedom of movement" of play. In addition to dismantling more general notions of gendered play, *Josie True* also breaks into the masculine domain of adventure games. Like the original videogames established in the tradition of *Dungeons and Dragons*, *Josie True* involves solving imbedded puzzles and collecting objects to move forward in game play. In contrast to traditional boys' videogames, *The Adventures of Josie True* includes a diary function. Diaries, as tools for reflection, are common to many of the commercial girls games discussed earlier. This electronic journal manifests into two parts: Josie's entries shown immediately after an event and a separate journal giving family background. The journal entries detailing Josie's family history fulfill a much more traditionally female need as a place to reflect on her emotional state. On the other hand, the diary as it appears during the game serves more as a way to carry on a conversation between Josie and the player. Josie will remind the player/herself where she needs to go next or give background facts on a recently completed game. In this respect, this lab book function adds an intellectual dimension to diary-keeping. As a result, diaries become an intellectual and emotional place for boy and girl identity development. Adding another layer to the diversification of gender within *The Adventures of Josie True*, a dress-up and makeover activity is included as part of a separate activities section. The inclusion of this segment acknowledges and gives credence to the second wave feminism supported by the developers of the girls' game movement. However, unlike these other games, *Josie True* offers a much more complete and complex picture of what a boy or girl can be. Integration of traditional girl and boy play personalities results in the deconstruction of gender roles on multiple levels. By blurring the gender lines, Flanagan's design team allows children to develop richer characters unhindered by social restrictions.



In addition to erasing character development limitations, *Josie True* also closes up the intellectual divide between boys and girls. Women are severely underrepresented in science, math and technology. According to statistic from the NSF, in 1999 only 10.6% of employed engineers were women while the number of female engineering students (undergraduate and graduate) ranged from 19-20% (SWE). This representation disparity is a result of the limited technological experience of young girls. A growing number of classroom studies show that girls are not getting to try out computers, and boys are appropriating the computer as their own" (Cassell and Jenkins 13). However, none of this research points to inherently inferior computer skills in girls. Instead, ideas of what is encapsulated in girl and boy domains perpetuate the technological gender divide. *The Adventures of Josie True* attempt to erase these barriers by creating a safe and fun technological space for girls to explore. By including boys as an audience, the game shows that both sexes can work together in this new world. The puzzles in *Josie True* help to further de-gender science, math, and technology. These games include activating a pulley system to lift blocks of ice and using simple arithmetic to calculate the time needed for train travel. According to Josie herself, she likes science because "I like finding things out and making things happen" (www.josietrue.com). This proactive attitude encourages boys and girls to be curious about everything and not just the things that have been assigned to their gender.

The ability to recognize and relate to role models and the skill to imagine themselves as these adults is necessary for the positive development of young children. *Josie True* offers role models in two forms: someone in the immediate local present and others in the faraway past. Ms. Trombone, Josie's beloved science teacher embodies the science, math, and technology of the game's core. She is a gifted inventor who has engineered a robotic cat. Her hobbies include "welding, water skiing, flying (she has a pilot's license), cloud seeding, meteorology, doing MENSA logic problems, raising birds, being an activist for women scientists, and speaking French, Hindi and Swahili" – in short a renaissance woman (www.josietrue.com). Her accomplishments can be admired by both young girls and boys and she provides an excellent example of a woman who has done everything. A strong female role model encourages girls to



pretend to be her and persuades boys to admire and respect strong women. Historical role models can play a large part in development. Unfortunately, history as it is written deems the past to be the property of old, white men. *Josie True* enriches history with the exploration of female historical characters such as Mahalia Jackson, the gospel singer; Bessie Coleman, the first African American aviator, and Marie Curie, the celebrated scientist. By supplementing traditionally male dominated mainstream history with the less well-known feminine past, girls and boys can learn that women are an integral and important part of society as a whole. The strong women of *Josie True* create a powerful framework for child development beyond gender constraints.

Besides presenting new ideas about gender, *The Adventures of Josie True* introduces children to characters of many different ethnic backgrounds. Distinct from other games which feature Caucasian heroes with Asian sidekicks, *Josie True* revolves around a young Chinese-American heroine. She characterizes herself as “weird: but still proud of her Chinese heritage; she sees herself as different but not freakish. By portraying herself this way, children learn about the existence and normality of cultural differences. As a main character, Josie shows that non-white citizens can



play a significant role in the community. The presence of Bessie Coleman and Mahalia Jackson within the game enriches the historical narrative by being strong black women. In addition, future *Josie True* games include travels to China, South America, and India. These ethnic explorations reinvent what the norm is for videogame characters.

Videogames are an inherently expensive activity. Game consoles cost upwards of \$50.00, computers at least a few hundred, and games themselves are between \$20.00 and \$60.00. Thus it's not surprising that the poor have been unable to gain access to videogames. As mentioned earlier, exposure to technology whether it be in the formal acquisition of computer skills or through informal use as entertainment is essential to the development of technological proficiency essential to success in contemporary society. As an experimental academic project, *The Adventures of Josie True* try to ease these economic partitions by offering the game free of charge on the internet and on a CD-ROM for a greatly reduced price of \$10.00. Through

game play, the unprivileged will hopefully have a chance to become familiar with the use of computers and continue further in the attainment of technological abilities.

The designers of *The Adventures of Josie True* have created a ground-breaking game that very successfully addresses three huge social flaws in mainstream entertainment: gender, race, and economics. However, we must remember that this game is an academic experiment unburdened by the need to sell a product to a mainstream audience. With this in mind, Purple Moon games, while somewhat devolutionary to the relationship between girls, technology, and gender roles, is much more successful in accomplishing *Josie True's* ultimate goal of changing mainstream videogame fundamentals. Academics can hide in their ivory towers and wax rhapsodic about the flaws of the girls' games movement – but we must remember that games published by Purple Moon are created to make a difference in the market *and* to make a profit. In order for the entrepreneurial feminist to succeed she must realize and accept market trends. In the words of Purple Moon's Brenda Laurel, "It's about making an intervention at the level of popular culture. I could build great radical stuff for PBS parents, but it wouldn't change the culture, it wouldn't change the things that are currently marginalized and make them more mainstream" (Laurel 131). With the interaction between continued academic research and the willingness of game companies to adopt some of these new ideas, videogames can continue to grow into a more mature entertainment technology.

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