



From Barbie[®] to Mortal Kombat

Gender and Computer Games



edited by

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An Interview with Marsha Kinder (Intertexts Multimedia)



Marsha Kinder, a professor of critical studies in the School of Cinema-Television at the University of Southern California, specializes in the areas of children's media culture, narrative and gender theory, multimedia, and national cinema. She runs the software company Intertexts Multimedia, where she produces and writes interactive CD-ROMs. She is also the director of the Labyrinth Project at the Annenberg Center for Communication, a three-year research initiative to expand the language of interactive narrative. In addition to the development of her own games, she has also consulted with game companies such as Sega of America and Mindscape.

Kinder's writing about games is informed by her roles as a mother and a scholar of critical theory, and by her identification as a feminist. Her close observations of her own child's development were the impetus for her book *Playing with Power in Movies, Television, and Video Games: From Muppet Babies to Teenage Mutant Ninja Turtles*. (1991) Reflecting her concern with pedagogy, issues of gender, and critical theory put into practice, Kinder has attempted to find new ways to facilitate learning through CD-ROM projects. She has created "Runaways," an alternative computer game for teens and young adults; "Blood Cinema: Exploring Spanish Film and Culture," the first in a series of bilingual CD-ROMs on national media cultures that she is editing; and "Doors to the Labyrinth," an anthology of interactive fictional worlds based on the works of experimental filmmakers and novelists. These projects (all funded by the Annenberg Center for Communication) reveal her desire to use new media to explore and recognize multicultural perspectives. Her edited collection of essays, *Kids' Media Culture*, is scheduled to appear from Duke University Press in the Spring of 1999.

"We're all searchers. All looking for the truth of who we are and where we belong in this world. If you want to join our common search, you can apply to be a member of our team. We look for teenagers who have run away from their families or from themselves. Run to their dreams or to their nightmares. To prove you're qualified to work with us, you have to solve a case, find the missing runaway, and help the runaway solve his or her problems. To be a good detective, you have to know yourself as well as the person you're searching for."—*Runaways*

Q: How did you get involved in this sort of work? What is your personal motivation?

A: I have always been interested in the movement from one medium to another. I was originally trained as a scholar in eighteenth-century English literature and wrote a dissertation that described how Henry Fielding used his experiments in the theater to help shape the then newly emerging genre of the novel. Once I started teaching at Occidental College in the mid-1960s, I began writing about literature and film, and then when I moved to the Critical Studies Program at the USC School of Cinema-Television in the early 1980s, I became interested in the relationship of film to television and electronic games and to new modes of storytelling. I had already made a CD-ROM called "Blood Cinema: Exploring Spanish Film and Culture," as a companion piece to my book of the same title, and used it to launch a series of bilingual CD-ROMs on national media cultures, which I am editing—a series funded by USC's Annenberg Center for Communication and distributed by the new USC Electronic Press. After teaching graduate seminars on interactive narrative theory, I became interested in putting some of my ideas into practice—to go beyond critical hypertexts and start experimenting with fiction. At USC it is possible to collaborate with people in production—both faculty colleagues and students—which was essential for our "Runaways" project. This kind of collaboration really appeals to me.

Q: Tell us about the collaboration.

A: I had the basic idea for the "Runaways" game and wrote the first draft. But when I applied for a research grant from the Annenberg Center to fund the project, I began working with Mark Jonathan Harris, who was then chair of the production division at USC's film school. Mark is a filmmaker whose latest documentary, *The Long Way Home*, just won an Oscar, and also an award-winning writer of children's literature. We cowrote, codirected, and coproduced the prototype for "Runaways." We had never worked together before, but there

was great chemistry between us. We gave a lot of thought to assembling the rest of our team. One key member is Kristy Kang, a Korean-American M. A. student in animation who completed her degree while working on the project. Kristy is very talented and worked as the director of animation, doing most of the graphics herself but also supervising the work of other animation students on the project. Another key collaborator was our art designer, Patty Podesta, who is largely responsible for the basic "look." Formerly an independent video artist, Patty has become a professional art director and has done work on Gregg Araki's films, among others. She has taught art direction both at USC and at the Art Center. Our chief programmer is William Hughes, who has a dual background as an engineer and as a TV cameraman. He made a great contribution in moving between production and programming, and he and Kristy are primarily responsible for the interface design. We also had many other students working on the project: production students shooting the live-action sequences with a mixture of professional actors and local teens, critical studies students doing research and gathering archival materials, and students from all of our programs doing voice-overs. In choosing students to appear on both sides of the camera, we purposely wanted a rich mixture of ethnicities, ages, genders, and sexualities. This was particularly true for the voices, for we wanted to use a great range of accents and inflections to get away from that so-called standard English that you always hear on mainstream media. We wanted our game not only to address players of all genders and ethnicities, but to show them that this same kind of diversity could also be found in the fictional characters on screen and in the real-life members of the crew. That's why most of us appear on screen as Searchers who invite players to join our team of detectives.

Q: How is this project related to your critical writings about children's media culture?

A: When I was writing my book *Playing with Power in Movies, Television and Video Games*, I became interested in how television provides children an entry into narrative and thereby mediates all other forms of cultural production. In a sense, television maps the world and the young viewer's position within our increasingly complex layers of networked narrative space. The reason television could perform this function much more powerfully than movies was its position in the home—the mere fact that kids have access to TV from the time they are infants. But now that computers, multimedia, electronic games, and the Internet are in the home and are increasingly available to kids at a very early



Figure 10.1: The opening screen for "Runaways" already creates an atmosphere of fluidity and transformation. Copyright Annenberg School of Communication, 1997. Used with permission.

age, they are competing with TV to perform this crucial function. And what gives them an edge is that these new interactive media make kids feel more empowered. As part of my book, I did a case study of my son's interaction with media from infancy to age nine. I even used his brief "version" of media history to open chapter one: "A long time ago there were no toys and everyone was bored. Then they had TV, but they were bored again. They wanted control. So they invented video games." I was really knocked out by my son's blatant emphasis on control—and worried about his love for "twitch and kill" games—and was surprised by his total omission of movies. His account followed not the historical chronology of the various media but rather the sequence in which he personally experienced their pleasures. I found this really fascinating, and it made me want to get involved in the designing of electronic games that made kids feel empowered, but without relying on violence. And that's what we try to do in "Runaways."

In my work on kids' media culture, I have also been fascinated with the way that tropes of instantaneous physical transformation—mutation in *Teenage Mutant Ninja Turtles* and *X-Men*, and morphing in the *Mighty Morphin' Power Rangers*—have become so popular during the 1980s and 1990s. In contrast to earlier shape-shifters like Superman and Batman, or those toy transformers that easily convert from a car or rocket into a superhero or monster, these new changelings come in multiples, thereby giving young consumers a choice of which superhero to select as a personal favorite. Not only have these tropes entered the popular imagination of global culture as an optimistic myth of comic transformation—which we can find in movies like Jim Carey's *The Mask*, in music videos like Michael Jackson's "Black or White," and in various software programs for digital compositing that have quickly turned morphing into a visual cliché—but they help reproduce postmodernist subjectivity in their young fans, encouraging them to see themselves as protean shifters who can adapt to a fast-changing world rather than as stable individuals with a fixed identity. Since these superheroes also move fluidly from one medium to another, their protean powers have been used for profit—to multiply their marketability. But what if these protean powers were used to address issues of social change?

That was the basic idea behind "The Changelings Project," a research initiative at USC's Annenberg Center for Communication. Our goal was to develop electronic games that use transformational imagery to explore the fluidity of personal, cultural, and historical identity. "Runaways" is the first experimental game in the series. Since I have long been interested in issues of gender, and since my husband is Mexican and our children basically are biracial and bicultural, I wanted our first game to address issues of identity politics.

When players join Searchers, Inc., a Hollywood detective agency that specializes in finding teenage runaways, they have to fill out an ID card. (See Plate 20.) They import their own picture, enter a code name, give their birth date, indicate their physical size and shape, specify their biological sex, their gender, their sexual orientation, their ethnicity, and their race. The very fact that they need to identify both race and ethnicity leads them to think about the difference between those two concepts. If they want to know more about them, they can hit the "Help" button and see quick-time animated movies on each topic. The same is true, of course, for gender, biological sex, and sexual orientation, categories that are usually conflated into simple binaries of male/female and straight/gay but that are separated here—so that players can consider the differences between them—each with four possible choices as well as its own playful "help" movie. (See Plate 21.)

Q: How are these issues of identity related to the narrative premise of "Runaways"?

A: To make the game more emotionally engaging, we thought we needed some kind of narrative quest or hunt that was related specifically to teens and that involved these issues of identity politics. We decided to focus on the social problem of teenage runaways and did considerable research on this topic. Mark and I visited most of the teenage-runaway shelters in Hollywood, interviewed their social workers, and found that issues of gender, sexuality, and ethnicity were very important, both as reasons for leaving home and as sources of conflict within the shelters. We sat in on discussion groups with teenage runaways and asked whether they thought our story was realistic, and what they would advise our runaway to do, and how their own story might relate to our fictional version. They were very receptive to the game and eager to play it when it was finished. One night we also went out on an outreach van that distributes food to homeless teens on the streets of Hollywood and throughout the greater Los Angeles area. We tried to make this dimension of the game as realistic as possible.

To link this narrative premise with issues raised on the ID card, we designed it so that whatever information players give about themselves has narrative consequences within the game; it helps determine how they are treated and what kind of information they get about the runaway. At a certain point in the game, they can change those choices on the ID card, which will have further narrative consequences. (See Plate 22.) But when you make these changes, you are not misled into thinking that your ethnicity or biological sex has really changed, but merely how you appear on screen and therefore how you are perceived by others, which gives us an opportunity to deal with the social consequences of these choices and the issue of stereotypes. The game puts you in the uncomfortable role of being treated as a stereotype and having other characters make all sorts of false assumptions about you, and this experience encourages you to be more of a shape shifter.

Q: It's interesting because there are actually three levels: how you initially identified yourself to the computer is already the second level. It's not necessarily the same as the person you are in your everyday life. And the third level would be how you identify yourself to other characters in the game world.

A: Exactly. We know that a lot of kids will choose to "misrepresent" themselves or to perform other identities when they play the game. We expect many kids to take a playful attitude toward the ID card, and that's fine with us.

Instead of scanning in their own picture, they can scan in any image to stand for them or can choose an image from our database of faces. We have purposely given them this wide range of choices. But we also think that for some kids who see themselves as marginal—particularly gay teens—or who feel that their existence is rarely acknowledged by popular culture, these options may be much more meaningful.

Q: How do you think parents will react to the game—especially when their children are given a choice of identifying themselves as a hermaphrodite, transvestite, or transsexual?

A: Some parents will object to these choices, but I think kids are a lot more sophisticated about these concepts than parents give them credit for. In fact, this is the basic assumption of my new anthology, *Kids' Media Culture*. Most kids have already seen Dennis Rodman, Martin Lawrence, or Bugs Bunny in drag, and have seen or heard about Ellen DeGeneres coming out on network TV. These concepts and images are already part of their social world. Why should kids be treated as if they are terribly threatened by those concepts? Doesn't that imply that they are very fragile? "Runaways" is experimental. If you're already worried about censorship while you're still in the process of designing a project, then you are engaging in a form of self-censorship that will prevent you from really doing anything different. When you are doing an experimental project, I think you have to be willing to take some risks.

Q: Are you interested in making your project commercial and having it available on shelves?

A: Yes; when we finish this prototype, we hope to show it to investors or commercial game companies and interest them in funding its completion. But we want to take it as far as we can, so that it represents our vision. We could have sold the script from the beginning; there was interest, but we were afraid it would then become something very different, something more like what was already out there. This game was not market-driven—it was driven by other kinds of substantive motives related to social issues, as I've explained—yet I think it does have features and values that might succeed in the marketplace, for they expand what is possible in computer games. I think this idea is supported by the enthusiastic response that our demo received at this conference.

Q: Do you consider yourself a feminist?

A: Yes, I have been a feminist since the sixties and have been teaching courses

on the representation of gender and sexuality for many years, so I was very interested in making kids feel more empowered on these crucial aspects of their identity. When I was doing the research for *Playing with Power*, I interviewed kids in day-care centers and video arcades and asked them why they couldn't choose to be April O'Neil in the "Teenage Mutant Ninja Turtles" arcade game and why there wasn't a female Ninja Turtle. I found that both boys and girls merely accepted the game and its rules as a given, and the same was true for most other toys that are increasingly gendered in very rigorous ways in the toy stores—with their separate pink and blue aisles—and in the packaging and promotion of these products. The kids never considered that these games and toys were made by specific people who had made specific choices, and that it might be possible to challenge or change some of these decisions. I also found that this rigorous gendering was further emphasized in the ways these toys were advertised on television, so that while your kids might use their own choice of games or toys to express their own distinctive personality—the way teens do with music and clothes—or their own personal growth from one generation of superhero to another—from Power Rangers to X-Men, for example—those personal choices are still made within the "official" narrative framework that is strictly coded, particularly on what is appropriate for each gender. What always sticks in my mind is that humiliating moment on *America's Funniest Home Videos* when two young boys who are caught on tape playing with Barbies run screaming from the room as soon as they spot their parents' video camera. In "Runaways" we were trying to create a game that allows kids to play around with images of their own gender and sexuality without fear—to challenge cultural stereotypes and to realize that these concepts are largely socially and historically constructed. While these assumptions about gender and sexuality are now widely accepted in critical and cultural theory, we wanted to make them part of an entertaining narrative that was accessible to teenagers, a narrative that might help them feel more empowered, particularly within this realm of gender and sexuality where many kids feel vulnerable and insecure. But we also wanted to show how gender and sexuality are related to other issues of identity, such as class, ethnicity, and race.

Q: What does being a feminist mean to you?

A: It means struggling against structures of domination and subordination based on gender and sexuality. The goal is not merely to reverse those structures, so that women are on top and men are on the bottom, but rather to do away with those very structures of subordination. Feminism never has been

and never should be monolithic; it is always responsive to specific historic and cultural contexts, to the pressures that come in different forms at different moments. I was fortunate because, within American film studies, feminism became a dominant discourse in the late 1970s and early 1980s. It was subsequently challenged by many voices—particularly by women of color and by queer theorists—who criticized it for having ignored issues of class, race, and sexuality, and for trying to pass off straight, white, middle-class women as the model for all women. I think this criticism is valid; feminism in the 1970s did have terrible blind spots. As a consequence, feminism has been forced to change in very positive ways.

Q: Has this philosophy affected the dynamics of your creative team and how you work together?

A: Absolutely! Not only is our crew equally comprised of women and men, and not only does it include members of most racial groups, but it is nonhierarchical. Everyone in the group underwent changes. No one was motivated primarily by money, although everyone was paid—I don't believe in exploiting free labor. Everyone worked for very low pay but still felt very good about it because we all learned a great deal from the experience. It's not easy to get the opportunity to work on an experimental project like this. Everyone working on "Runaways" believed very strongly in the project and felt their input was taken seriously. We all contributed to the content as well as the form, and we all shared the most tedious tasks.

Most important, we all wanted our game to address the issues of race, ethnicity, and class as well as of gender and sexuality, and to show how these various discourses were related to each other. We wanted to encourage kids to go beyond racial and ethnic stereotypes. Except for games involving sports, most action games are targeted at white middle-class boys. When they do allow players to choose action figures of other races and ethnicities—as in games like "Mortal Kombat" and "Doom"—they are frequently pitted in combat games against an opponent of a different race or are instructed to shoot any alien—or stranger—on sight, scenarios that hardly promote racial harmony. And when players are able to choose female warriors, their violent moves are frequently so eroticized that the male-female combat becomes a substitution for violent sex.

Q: How does your prototype address these issues?

A: In our prototype, the runaway is a Latina named Rita Rodriguez (see Plate 19) who has an older Chinese-American boyfriend at San Francisco State, a

choice that does not make her parents happy. As her parents see it, this is merely one problem among many that Rita faces, but her parents have their own problems. For one thing, they come from different class backgrounds and have different conceptions of what it means to be a good parent. And there is also an issue of adoption. The characters in the story come from different social strata and from many different ethnic and racial groups. The search for Rita ultimately leads to Mexico.

Q: Are there other runaway cases in your game?

A: Yes, there are five other cases, but they now exist only as treatments that have not yet been produced: a thirteen-year-old Anglo boy from a small town in Oregon who has run away from an abusive father and is being sought by his older brother, who also ran away three years ago; a sixteen-year-old mulatta who has run away from an alcoholic mother to pursue her dreams of independence in Hollywood; a seventeen-year-old Russian émigré who wants to be a ballet dancer and whose parents fear he is lost in the gay world of West Hollywood; a seventeen-year-old Vietnamese-American girl who is afraid to tell her parents she is pregnant; and a sixteen-year-old bright, athletically gifted African-American girl who wants to play college basketball and who is now being sought by her grandmother.

Q: How important was the visual element of the game for you?

A: Extremely important, because this is a multimedia game and we want it to be a pleasurable and rich experience. I think kids are very sophisticated in reading visual culture. So we paid a great deal of attention to the quality of the graphics and the overall look of the game, particularly since we are combining live-action footage with animation, melodrama with magic. In writing the script, we were looking for a story that had strong visual appeal—that's one reason why we chose Chicano and Mexican culture for our first case. That's why we made Rita's biological mother a muralist and we have Rita follow her to Mexico, where she is studying the works of artists—like Rivera, Orozco, and Siquieros—and that's why Rita's friends are taggers, and she and her boyfriend are video makers, and that's why we end the story in the pyramids of Teotihuacán. We wanted to show the rich heritage of the Mexican culture, not just the problems, so that's why we emphasized the great Mexican muralists and their connections with the outdoor murals that are found throughout urban Los Angeles. We wanted our game to have a rich visual texture, and yet, at the same time, we didn't want to ignore the soundtrack. We paid a lot of attention

to choosing audio clues and gathering amusing sounds, evocative music, and interesting voices. We also wanted to make the language as rich as possible. Some of the dialogue is in Spanish and Mandarin Chinese—parts that needed to be translated. The Latino teens who tested the game felt very empowered by the presence of Spanish because it meant that they could draw on their own cultural resources to solve the mystery. It gave them an edge they were not used to having in computer games.

Q: Could you tell us more about the testing?

A: We invited a group of eight teens from a local high school in South Central Los Angeles to our lab, where they played the unfinished prototype of the game. Ranging in age from fifteen to seventeen, they included an equal number of males and females as well as an equal number of Latino and African-American students. Since we were interested in seeing whether the game could motivate group play across the boundaries of gender and ethnicity, we allowed different students to take turns at the mouse while the whole group looked on. Although this strategy tended to make the one at the mouse more self-conscious about filling out the questionnaire, they all seemed eager to have a turn and to have the ID card reflect their own personal identity, except on the issue of sexual orientation, where they collectively decided to pick “nonsexual” as their choice. They all appeared engaged in the game and most of them responded verbally to the interviews with Rita’s parents and boyfriend, giving ideas about where to look for Rita and why she had fled. The Latino students were particularly vocal when the dialogue was in Spanish, apparently very pleased to share their knowledge with the group. At the end of the play session, when we asked what, if anything, they had learned from the game, one young man responded, “Well, you really can’t tell about a person when you first meet them. You really have to know more about them.” We were pleased with this response because we thought it demonstrated they were getting beyond the initial stereotypes. In designing the game, we tried not to imply that every kid who runs away is at fault, because there are some homes that really are dangerous. On the other hand, we didn’t want to encourage kids to run away or to minimize the real dangers that are out on the street. So it becomes a question of realistic problem solving. We don’t have a single happy ending but four different possible resolutions, each with its own limitations. We tried to take a complex approach to Rita’s problems, to show that there are always multiple explanations and that blame usually belongs neither solely to the runaway or to the parents. It’s usually more of a combination, where everyone is partly to blame. What was heart-

ening was that the kids really liked this approach to the problem because they thought it was realistic. Several of them said that the game was more realistic than any other game they had seen, and that moved them. We were also pleased that the girls were as vocal as the boys and that neither gender nor ethnicity seemed to be more dominant than the other. But it was a small sample, and we plan to do more testing once the prototype is finished.

Q: Will these kinds of games draw girls to the technology?

A: I hope so. One reason girls haven't tended to play computer games as much as boys is that everything about these games—their player-positioning, content, and packaging, and the way they are advertised and sold in stores—everything is saying, "THIS WAS DESIGNED FOR BOYS, NOT GIRLS . . . but maybe a few of you girls can use them, too, if you are bold enough to act like one of the boys!" That is why I feel everyone should be thankful to Mattel for demonstrating that there is a girls' market out there for electronic games. But games designed exclusively for girls, like "Barbie Fashion Designer" and "Let's Talk About Me," also further essentialize the great divide between boys and girls. By making a more rigid distinction between products targeted for girls versus those targeted for boys, they reinforce the boundary between the pink and blue aisles in Toys 'R Us—a tendency I've written about in *Playing with Power*. I know such products are based on extensive industry research about what girls like in games, but I think these tastes are socially constructed, so there is a circularity or self-fulfilling prophecy in the research. Even when kids are designing their own games, as in Yasmin Kafai's fascinating studies, it is not as if this reveals distinctive biological tendencies that are immune to cultural influences. I think kids learn very early what they are expected to like; if their parents, teachers, and friends don't tell them, then television advertising does. For example, there is no inherent reason why little boys shouldn't like little ponies, but they can clearly see from the television ads that "My Little Pony" is designed exclusively for girls.

A couple of years ago at E3—the Electronic Entertainment Expo—in Los Angeles, I was on a gender panel with the vice president of Mattel, who gave a list of essentializing characteristics (based on their research) of what little girls like as opposed to little boys. Included on this list was the comment that, whereas little girls like dolls, little boys like action figures. This remark seemed absurd since clearly the term "action figure" is merely an alternative name for a doll, one that can be marketed successfully to boys. Although I had a prepared speech to deliver, I threw it away and answered his paper instead. So much of

the research is faulty because it's based on these essentialist assumptions. All you are testing is how effectively kids have absorbed these cultural binaries of gender.

I think the popularity of "Myst" is very important because it contradicts such studies by demonstrating that both genders can enjoy the same game. Even though it has an oedipal plot—a conflict between the brothers and their father—the emphasis is not on gendered activities. The popularity of "Tetris" with both genders is also important, even though some researchers have tried to link the actions with domestic activities performed by women—cleaning up a mess. In other words, the discourse around games can also contribute to the rigidity of their gendering.

What we were trying to do in "Runaways" was to design a game that not only could address both boys and girls but might also motivate cross-gender play—that is, making it more fun to play the game with people of another gender. And we hoped to accomplish the same kind of goal on the register of ethnicity. Although we chose a female protagonist in our first case study and included other strong female characters, we also included strong male characters.

Q: Why do you think all of a sudden there's such an interest in girls and games?

A: I think it is overdetermined. On the one hand, as computers increasingly merge with television, there is an understandable desire to expand the market. Everyone knows that as these various mass-communication media come together—not only computers and television but also cinema and the telephone—it will be a question of which medium absorbs the others, so each wants to be seen as the most expansive and inclusive. The medium that succeeds must have a mass audience, one that must include females. But both the CD-ROM and the game industries have remained remarkably narrow in their target audience. They could easily be written off as transitional, short-lived media, particularly when contrasted with the explosive growth of the Internet. The video game cartridge market is particularly narrow, although it has been somewhat expanded—both in age and ethnicity, but not gender—by the sports genre. Because these products must sell so many copies within a very short period in order to retain shelf space, there is little room for experimentation. But with CD-ROM games there is more margin, and that's where the action has occurred with new games for girls.

Another important factor comes from those interested in social change within the educational sphere. Since the Clinton administration has made

the hard-wiring of schools an important priority, there has been a dawning realization—among politicians, educators, parents, and manufacturers—that there is a desperate need for software that can appeal to both genders. Another important factor is the increasing participation of women in the discourse defining the new media—whether as activists, theorists, researchers, teachers, mothers, designers, industry spokeswomen, or entrepreneurial feminists—because we women are increasingly realizing what is at stake in this cultural battle.

Q: Sherry Turkle once said that the computer is a personal cultural symbol of what a woman is not. Do you agree with this? How does the representation of the computer affect how girls interact with it? How does this issue influence the process of designing CD-ROMs for girls and boys?

A: With the emergence of every new medium, there is always a transference of existing power struggles onto the new site. Every new medium is a site for cultural negotiation on these issues, so it's not surprising that you would find this same old sexist pattern arising in cyberspace and the discourse around computers. Women are dealing with computers daily, but usually as secretaries and "keyboard operators" who are duplicating someone else's text, usually authored by a male. Somehow the culture doesn't count that computer activity as important. It's not the technology itself that determines these power dynamics but the way it is represented discursively. These new technologies definitely offer new possibilities for altering gender relations, which theorists like Donna Haraway and Sandy Stone have detailed, but they also can be appropriated by traditional discourses. While I agree with Stone that we should try to intervene and use these new technologies to reimagine our sexuality, such utopian visions must also confront existing power relations. The schools will prove to be a battleground for this confrontation.

One of my graduate students, Karen Vered, is doing very interesting work on the socialization of the play around computer games in schools. What she has found is that although many of the girls are just as good as boys at working with computers, they don't play games in the same ways as boys: they frequently feel uncomfortable playing in a highly competitive and public arena, even when a lot of collaboration is involved. It is not that girls are inherently noncompetitive but rather that competition has been coded in a certain way so that girls are automatically put on the defensive and seen as not measuring up. Yet these same girls frequently take pleasure in using computers for their homework and typing. It is not that girls are more conformist than boys, but

rather that both genders conform to different sets of cultural expectations regarding leisure activities and the use of technology. I think what we have to do is design structures that lead to nonconformist behavior.

Q: Some in industry would say that they make the boxes pink and they design things in certain ways because that's what sells. Is the goal to expand access and empowerment for girls, getting them to use the technology? Or is the goal to give this generation of girls new representations of gender? Are these reconcilable goals?

A: Yes, I believe they are reconcilable goals and that it is important to do both. I want to make girls feel more empowered by creating nontraditional forms of gendering. Maybe it was first necessary to demonstrate that there is a girls' market out there, and Mattel has performed a valuable service in achieving that goal. But I hope we can go beyond that conception of games for girls. To keep making those kinds of essentialist games is problematic.

Q: What do you think the future holds?

A: For our creative team, in the immediate future we must finish the "Runaways" prototype, test it with more potential players, and then find someone to finance its completion and produce other case studies. We also envision an Internet version for multiple users where it will be possible to play either the searcher or the runaway. This version might provide a vicarious alternative to actually running away from home, and it might give players an opportunity to invent their own characters and write their own stories. I think it could be a very exciting game.

In more general terms, I think the future of interactive games really lies on the Internet, because that's where the options are much more open and therefore much more exciting. But the bandwidth is not yet ready to accommodate the kind of visuals and sounds we need to make the games emotionally compelling as a fully immersive multimedia experience. It will happen fairly soon, and when it does, we want to be ready with new engaging designs. That is one of the primary goals of the Changelings Project. We are experimenting with ways to expand the visual language and emotional impact of interactive narrative.

—July 1997