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ABSTRACT

Television programs are increasingly featuring information technologies like computers as significant narrative devices, including the use of computer-based technologies as virtual worlds or environments in which characters interact, the use of computers as tools in problem solving and confronting conflict, and characters that are part human, part machine. The television programs include science fiction shows, commercials, and children's shows. Within the state-of-the-art worlds of these television programs are embedded representations, particularly linguistic ones, which inscribe simplified, compartmentalized, and encased conceptions of race, culture, gender, power, personal agency and identity. The program's depictions have consequences on the ways children situate their identities of race and gender, as well as personal and social agency; language limits and shapes, and specialized vocabulary can alienate and create a feeling of deficiency or "otherness" in young viewers. Languages spoken on high-tech television shows are by and large unnegotiated: young people must construct meanings themselves, as they cannot interact with the cartoon characters who use a great deal of computer terminology or directly challenge their use of language portrayals of gender or racial stereotypes. Often the stereotypes portrayed do not dovetail with the child's personal experience. A detailed analysis of portrayals in the popular children's television cartoon "ReBoot" illustrates the discussion. (Contains 16 references.) (SWC)

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**Title:**

**Mistaking identities: Challenging representations of language, gender, and race in high tech television programs**

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ReBoot's scripts are deftly written to be easily understood by children, with a wink and a nod to the adult viewers. The citizens of Mainframe speak in a high tech dialect that incorporates computer terms that have crept into the everyday language of the automated age. Bob complains when a task is not his 'function'. Enzo is encouraged to 'cut and paste' the truth. When Enzo gets discouraged, Dot counsels him not to 'quit file' so easily.

(Excerpt form [ReBoot] Press Kit - Alliance Communications and BLT Productions)

...we need to look not just at work that collectivities collaboratively do to construct gendered worlds but also look at the work that language does to limit, shape, make possible, one kind of world or another. ...The individual subject is understood at one and the same time to be constituted through social structures and through language, and becomes a speaking subject, one who can continue to speak/write into existence those same structures through those same discourses. But as a speaking subject, they can invent, invert and break old structures and patterns and discourses and thus speak/write into existence other ways of being.

(Bronwyn Davies)

### **Introduction**

The genesis of this paper developed through an awareness of the growing number of television programs that feature information technologies like computers as significant narrative devices. These devices include the use of computer based technologies as environments in which characters interact (e.g. virtual worlds) and the use of computers as tools that characters utilize to confront conflict (e.g. computers as problem solving tools). Characters in these programs are often themselves part human, part machine; cyborgs, fused and bonded with technology. These television programs include science fiction shows (e.g. Star Trek: The Next Generation, Star Trek: Deep Space Nine, Star Trek: Explorer, Space: Above and Beyond, Babylon 5, Sea Quest, Dangerous Games, etc.) commercials (e.g. IBM, Microsoft, Intel, Apple, etc.) and children's shows (e.g. Power Rangers, ReBoot, Johnny Quest, VR Troopers, Reality Check, etc.). In addition to their use as narrative devices in these programs, computers are increasingly made reference to and talked about on numerous prime time situation comedies (e.g. Home Improvement). Within the state-of-the-art worlds of television programs using high tech innovations are embedded representations, including the use of language, which inscribe simplified, compartmentalized and encased conceptions of race, gender, and power. Characters in these programs engage in a pseudo-language appropriated from computers and science, where a specialized vocabulary is part of the "natural" lexicon.

As a student and teacher of educational technology watching these programs based on themes derived from high tech innovations, I am concerned with how young viewers through the constructed character identities in these programs transform difference in relation to the technical language and encased representations of gender, race, and power to a potentially alienating otherness in young people. A Saturday morning children's cartoon like "ReBoot" appears in 40 countries throughout the world. How do young people who do not possess the same literacies and competencies as these television characters apparently possess, interpret this jargonized language and imagery? Will some young people confuse their differences with deficiency? How will this structure their relationships with technology in using the computer as a tool for learning? How may young people be relegated to low tech ghettos of impoverished knowledges about technology, computers, and computer culture in the way these shows through their imagery, language and narrative structure help construct these ghettos and position the low tech viewer in relation to the cultures advanced in these shows?

These questions evolved while watching programs like "Star Trek: Voyager" and "ReBoot" with the four young people with which I live [ages 9 (male), 12 (female), 13 (male), and 15 (female)]. Even though these young people possess a working knowledge of computers and have access to computers both at school and at home, aspects of these shows including stereotypical descriptions of race and gender do not resonate within their experience. They see Western stereotypical representations of race and they do not match their experiences with their friends of color - their experiences are more idiosyncratic and unique compared to the offered stereotypes. They view the tight fitting uniforms that the slim female characters in these shows often wear and the girls do not see an ideal of femaleness, instead they often see unrealistic and undesirable conceptions of physical beauty.

The question kept surfacing, "In what ways do 'different' children (i.e. young people with different social positioning and literacies than those depicted by the characters in these programs) attach meanings to the words and metaphors,

characters and narratives of these TV programs and how do the meanings they attach impact their relationship with themselves and the societies and communities in which they must negotiate their lives?"

Examining the role of popular culture in framing issues of race, gender, and agency including the power of television with its capacities for representation and construction of meaning, is central to understanding how the mass media inform, structure, and constrain the daily lives of many young people in postmodern societies (Agger, 1992). Through portrayals of postmodern life, television programs teach specific ways of knowing and being about race, culture, and gender (Giroux, 1989; Cortés, 1995). In discussing ways that high tech shows may position themselves in relation to young viewers, I would like to focus on the processes with which these shows simplify, compartmentalize, compress, and encase language, personal agency and identity. I will frame this analysis through an examination of an episode of a popular Saturday morning cartoon, "ReBoot".

As Bronwyn Davies (1993) observes language and discourse play a constitutive role in the construction of gender. The languages with which young people engage themselves, others, and television programs have consequences on the ways they situate their identities of race and gender, as well as personal and social agency. Language limits and shapes, making one world in which 'difference' is viewed as 'other' more possible than another where 'difference' is viewed as part of a larger collective. Young people watching television and interpreting language spoken by television characters are forms of discourse, albeit largely unidirectional discourses from program to viewer(s). The types of languages which are spoken on television programs based on themes derived from high tech innovations are by and large unnegotiated: young people must construct meanings within themselves or perhaps between themselves and the others they may be watching with without an exchange with the characters. They cannot say, "What did you mean that you 'downloaded files' or 'How are you using the word 'bitmap'?" Young television viewers cannot interact with characters in a cartoon who use a great deal of computer terminology or directly challenge their use of language or portrayals of gender or racial stereotypes. The discourses do not extend directly back to the media. This hermetic encasement of specialized language associated with computers has the potential to alienate young people and separate them from their sense of personal agency. This separation positions the young viewer as an "other" in relation to dominant forms of language about computers and shifts the responsibility to the viewer to understand and make sense of what is seen and heard. The 'pedagogy', if you will, of television is similar to the dominant model of education which positions students as passive receptacles of information.

Related to the way that television encases language is the way that language has developed around computers in which a similar reification of meaning exists. Through increasing interaction with computers at home, school, and work computer terminology has crept into the popular culture and is often used as metaphors to describe aspects of daily lives. A glance at the comic section of any newspaper will reveal numerous references to computer culture. Computers have served as the dominant metaphor of the human mind for the cognitive sciences for decades. In discussing the growing infusion of computer terminology as a form of metaphor into language Sardello (1985) writes, "Computer terminology is certainly not a living language, but rather the enslaving language of turning every form of speech into an object to be manipulated by the totalitarian grammar of computational logic".

Living in western postmodern societies engages young people on multiple and fluid levels of social interactions where experience is fractured though an ever-present interaction with mass media including television, film, radio, and computers. By simplifying and compartmentalizing complex issues and relationships, television tries to neatly encase the unknowable and constantly changing through a process of fixing and rendering static and objectified that which is always changing. An example of these processes in television is the always neatly drawn line between good/evil and right/wrong in many programs. This simplified encasement of meaning through dualism goes counter to the complexities of western postmodern life. Developing a practice to challenge the ways that these programs manage and control the potential for 'difference' in multivalent and ambivalent characters, meanings, and interpretations becomes an important task and challenge for educators. By challenging dominant cultures' needs for legitimization, consumerism, and productivism, the literature surrounding critical pedagogy which began with the writings of Paulo Friere (1970) has provided an educational framework with which to address issues arising from critical cultural studies. Critical pedagogy provides the point of praxis, the meeting of theory and practice through the political.

### **Critical Pedagogy**

Ideas of critical and emancipatory pedagogy provide a framework with which to form strategies of practices to work with young people to reinterpret the potentially alienating messages of the programs discussed. By framing pedagogy as a cultural practice of cultural production, critical pedagogy addresses the relationships between language, power, knowledge and individual agency and views learning as part of the process of social change itself (Kanpol, 1994). Always viewing

teaching as a political act, critical pedagogy strives to understand how power works within particular historical, social, and cultural contexts in order to engage and, when necessary change such contexts. Henry Giroux (1994) writes:

By refuting the objectivity of knowledge and asserting the partiality of all forms of pedagogical authority, critical pedagogy initiates an inquiry into the relationship between the form and content of various pedagogical sites and the authority they legitimate in securing particular cultural practices.

If one frames viewing television as an act of cultural learning then a practice influenced by critical pedagogy may help challenge static representations of language, gender, race, and personal agency. Critical pedagogy opens new discourses with popular culture texts. For example, while discussing the technical language used in a particular television show with a young person a teacher may ask her or him questions about dominant forms of language, consumerism, and their relationship to these dominant discourses. Questions about the young person's conceptions of what types of people might better understand this technical language may prove productive? As Apple (1990) challenges teachers must enable students to "...inquire as to *why* a particular collectivity exists, *how* it is maintained and *who* benefits from it." Questions within a critical framework help the young person to side-step being positioned against these dominant discourses as 'other' and powerless, and help to redefine notions of agency and power.

Theorists working within this framework often draw upon poststructural ideas to gain entrance into the power struggles of representations of race and gender in popular cultures. Poststructural theory defies universalizing meanings and provides pedagogical theorists a means to break notions of totalizing and totalizable power and control. In poststructuralism power is seen as dispersed, as networked and horizontal rather than vertical and concentrated. Poststructuralism rewrites notions of power (away from the dualisms of powerful/powerless; dominant/subordinate) and toward notions of lines and vectors of power that can be concentrated within nodes of institutional practice, and within particular historical contexts and situations. Poststructuralism assert that language is an important mode of representation that constitutes what counts as reality. In this sense students can become what Henry Giroux calls "border intellectuals" - crossing the boundaries of dominant power structures including the politics of representation that television structures.

Influenced by poststructural ideas a teacher thinks of ways of helping young people rewrite the potentially encasing ideas of gender, race, and personal agency of television programs. This work can happen in many forms including discussion, writing, and the creation of media including music, photography, and video (Paley, 1995). Important to cultural and pedagogical theorists is the politicization of culture. These ideas often considered liberal and even radical are ignored by many theorists in education who refuse to see school as a site of political struggle for identity. Yet as Toni Morrison (1993) notes, "Excising the political from the life of the mind is a sacrifice that has proven costly."

Some who have examined the literature on critical pedagogy contend that these theories are highly abstract and may not necessarily sustain the daily practice of the education its supporters advocate (Ellsworth, 1989). Despite extensive literature in this area, scholars rarely in their writings locate their theoretical constructs within actual localized practice. If one is to believe the arguments of poststructuralism, that meaning is negotiated and constructed by the individual within a social context, then it is important for us as educators to find local and personal venues to realize critical theories. This should not be interpreted as a pedagogy that leads to isolated individualism but to a pedagogy that helps the individual situate their place in a living history. Michael Shapiro (1995) writes the significance of emphasizing individual lives:

...is not its refocusing from collectivities to individuals but its identification of the plurality of consequences, registered in different lives, that become available when descriptions of the intersections of different flows of activities are allowed to displace the official language of the order.

Theory only exists in the way that it is acted upon. A variety of educators drawing upon different aspects of critical pedagogy have found ways of deconstructing some of the hegemonic influences within postmodern western societies including the struggles to situate multicultural activism in the University (Ellsworth, 1989) politicize power in teacher education (Giroux, 1994), bring critical readings of mass media into the high school classroom (Fehlmand, 1992) and find new ways of re-reading and re-writing 'history' through testimony (Felman & Laub, 1992).

If one views education as a social and political process and wishes to support the individual student's construction of meaning then it becomes necessary to find local venues of practice to address power and agency -to irritate the taken for granted simplification, compartmentalization and rigid encasement of representations of power, race, and gender. Critical pedagogy supported by poststructural ideas provides ways of finding the "interpretive breaks"; the points at which we get close enough to see the cracks in an ideology, power structure, or representation by making visible the invisible walls that maintain inequities. These walls could be a subtext or the words or actions that go unspoken, intentionally or not.



I turn now to a specific examination of a cartoon to highlight some of the ideas that I have advanced about high tech television shows and their capacity to simplify, compartmentalize, compress, and encase language, gender, race, personal agency and identity.

### **"ReBoot"**

"ReBoot" is an ABC Saturday morning cartoon that airs in 40 countries in North and South America, South Africa, and western Europe. The show is translated from English into several languages including Spanish, French, and German. "ReBoot" takes place on an "Island" called "Mainframe" within a computerized world. All characters in ReBoot are computer programs called "Sprites". I chose to analyze "ReBoot" for this paper because of its use of computers as the axis around which the entire narrative rotates. Characters in the cartoon use language that is specific to computers in the real world to describe more universal human actions and characteristics (i.e. improvements in a character may be described as an "upgrade"). There are many parallels in language that a young person who uses a computer regularly may make with her or his own life. Yet there are many who do not possess this type of 'literacy'. One wonders of the meanings that will be constructed by a young person who feels alienated by such language.

There are five main characters in the cartoon. "Bob" is a 'Defender,' a guardian program from the advanced civilization of the Super Computer. Using Glitch, a multi-functional computerized protection device he wears on his wrist, Bob represents the young male warrior ready to protect Mainframe from any electronic threat. "Dot Matrix" is the shows female character and as the shows press release states is "an attractive entrepreneur". Dot's primary business venture is as owner of "Dot's diner". "Enzo", Dot's adolescent brother, serves as the character young viewers may most associate with - often too young to be in the action, he must wait on the sidelines while Bob and Dot do the work of adults - saving Mainframe. Enzo is portrayed as the 'typical' *American* adolescent boy with crooked baseball cap, skateboard, and dog, "Frisket". Positioned against this representation of boyness how would a young viewer in South America construct his or her conception of 'boyness' or 'girlness'? One never hears of parents nor sees Dot and Enzo's parents in the show. Through their speaking of standard American English, these characters display typical European characteristics of whiteness. "Phong", a cyborg character, half machinelike, half human, is the only identifiable character of color - golden colored and displaying the west's stereotypical images often associated with mature Asian men including goatee and a steady stream of Confucian wisdom. Phong serves as Mainframes spiritual mentor and the wise teacher of Bob, Dot and Enzo.

"Megabyte", a computer virus programmed to always grow and seek more power, is the story's darkly colored villain. During most episodes he aspires to increase his foothold in Mainframe which includes controlling about a third of the city. But, of course, he always fails and is made to look foolish in the process - his greed for power blinding. I wonder if Megabyte displays in this television program what Morrison (1992) calls in American literary tradition the "choked representation of an Africanist presence." Hexadecimal portrayed as a female is the shows other primary villain, a computer virus written to create chaos not seek power. Her face never moves when she speaks instead she puts on a series of masks to portray her mood or display a feeling she is trying to convey. Like Dot, Hexadecimal's hourglass figure conforms to the western stereotype of an attractive women.

At some point during each episode a purple gaseous cube descends from the sky and covers a sector of Mainframe. This is a game being loaded by the "user" the operator of the computer in which Mainframe is located. No one is certain of the "user's" identity, they only know her or him as the entity that tests the Sprite's (usually Bob, Dot, and Enzo) abilities to fight and win through physical strength and technical ability. The games are often "Dungeons and Dragons" styles games which are generally violent role playing games, mostly played in real life by adolescent boys. These games often include medieval contexts inhabited by wizards, fighters, thieves, and damsels in distress. Games also take the form of professional basketball games, wars, and car races. How will young viewers who are not familiar with the conventions of these games and scenarios map their own experience onto their viewing of ReBoot? When the sprites enter a game they must "ReBoot": a process where they are assigned a "character" which defines their skills and weapons in the game. Passing through a series of levels, the defenders must win each game against the "user" or else the sector will go 'offline' turning each of the sprites in that sector into "Nulls" energy eating slugs that live in the lower levels of Mainframe.

In addition to the main characters is a sub population called "Binoms" who are more machinelike and look more like children's toys. They are generally shaped in the form of 1's and 0's. These characters are unidimensional and possess stereotypical personalities (e.g. a television with hands that is the "typical" French waiter, complete with mustache, exaggerated accent, and towel over the arm). Binoms passively populate Mainframe as it's proletariat - workers who do word processing, graphics and manipulate numbers, giving the main characters a populated context in which to act.

The episode examined for this paper is entitled "Identity Crisis", a two part story in which Dot tries to free a section (Sector) of Mainframe under Megabyte's control by importing the PID (personal identification numbers) of every Binom in the sector into a computer. These PID number are important because an individual, including a Defender, without one falls under the computer-based control of Megabyte. A PID is equivalent to personal freedom. Importing these numbers into a computer allows Phong to convert the sector into an Energy Park, a haven free from the dominating control of Megabyte. They must give up their only source of personal freedom to obtain the greater freedom of their community. In the episode after an emotional plea from Dot, the Binoms, rather passively give up their PIDs.

Notions of "revolution" are seen as mass, largely passive efforts carried out by a few vanguard leaders and not decentered individual (situated) actions. Through this vision, masses of undifferentiated binoms give up what makes them individual for 'freedom', an interesting metaphor for passive reception of mass culture. Agency is handed over to the few and powerful protectors of freedom. In "ReBoot" freedom means not under the control of the malevolent Megabyte

In this episode when it comes time to give up the PID numbers and all the Binoms begin to release their codes en masse there is a medium shot of a Binom family. The father in the family not only releases his own PID but the PID of the mother and the baby without getting their consent. Agency is usurped from the female and child by the father.

Dot, with her distorted Barbiesque physique, is the mastermind of this "sector conversion". It is through her careful planning, using a computer, that this grand event is possible. She prepares for her final meeting with the Binoms to collect their PIDs by changing from her tight fitting space-age pantsuit to a blue tight fitting business suit with black and white top, gold accessories, and a short black miniskirt. The outfit is completed with a pair of round black eyeglasses that she never wears in the series until this point. What do the glasses signify? That she knows better, but needs to reinforce this with the Binoms.

The creators of the show assume the viewers posses a tremendous amount of technical language frequently using computer words as everyday parts of language (See Table 1).

Table 1  
Examples of technical terminology used in ReBoot

glitch	nullify	bug	alphanumeric	sprite
modemed	floating point	bitmap	8-bit	overwrite
low density	dot matrix	backspace	wait state	encryption
hidden file	COMMAND.COM	algorithm	unformat	downloading

What kinds of knowledge and skills must one have in order to have agency in Mainframe? It is clear from the success of sprites like Bob, Dot, and Enzo that one must be extremely computer literate as well as knowing how to fight. Physical dexterity and strength are valued and crucial to win a game and defeat the plots of Megabyte and Hexadeciamal .

## Conclusion

There is not one way to read media. Any single, particular strategy of interpretation leaves out other ways of seeing. Whenever an interpretation is imposed on a perspective, alternative interpretations are repressed. Because no reading is innocent, the questions that go unposed about a text and what it means are as important as the questions that are asked. Learning is always situated and knowledge is always incomplete. As Ellsworth and Miller (1996) write:

...constructing and disrupting fixed meanings of difference is profoundly situational, and often tedious. It also is personal and social at the same time, risky, never predictable, and requires imagination and courage of the intellect as well as of the heart.

An idea, theory, power structure only exists in the way that it is acted upon not on the way that it is theorized about. Ultimately what is the good of situating the analysis of the "ReBoot" episode within critical pedagogy? There can be advantages to illuminating what goes unspoken in a piece of media, but for what purpose and for whom? Without praxis the re-creation of knowledge is incomplete.

For my part I can situate my analysis with the four young people with whom I live. I can ask them questions about their understanding of how language is used to construct meanings of race, gender, and agency and frame issues like how a female character displays stereotypical characteristics of femaleness through her actions. I have done this and often am met with confusion, yet creating confusion can open new ways of seeing. Together we have tried to re-construct

meanings about various representations in "ReBoot". For example, I have asked them other ways that a character could confront conflict instead of using a particular technology. Discussions of negotiation and compromise have developed from this question as well as the problematic nature of the conflicts themselves (i.e. what is presented as important enough to engage the characters).

I can also challenge the teachers that I work with while teaching them video production to find ways in their own practice with students to rupture the inscriptions of identity presented by television and other mass media. These challenges will be highly idiosyncratic and unique to each teacher as will the way that each teacher responds to these challenges. Through video production, teachers, together with their students, can take stereotypes and encased representations of language, race, and gender and turn them back on themselves to rupture meanings and make room for new representations.

Ultimately what becomes clear is that one cannot proscribe this kind of cultural work - it is important to situate action within a specific community at a specific time. Regardless of whether representations are accepted passively or actively challenged, meanings will always be assigned to representations.



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