# MAPPING TECHNOLOGY ON THE BODY, AGAIN: TOYS R US, CHRISTINA HOFF SOMMERS, AND THE NEW ESSENTIALISM

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Abstract--The mapping of technological agency onto masculinity requires ongoing cultural work. This paper examines several sites where that cultural work is being done most vigorously, including a Red Envelope mail-order catalog, a TV ad from Capital One, the Amazon.com/Toys R Us Website, a news story on astronaut Laurel Clark, the Harry Potter book/film series, and the essentialist polemics of Christina Hoff Sommers. It demonstrates how marketers sell products (and ideologues sell ideas) by selling gender "normality," exploiting the fear that any gain in technological agency by women will be accompanied by a commensurate loss in identity-as-agency by men.

Index Terms—Technology, Gender, Children's toys and books, Christina Hoff Sommers

For most people in the United States, the fact that women are 51% of the population but less than 10% of the nation's engineers has an obvious explanation: the Geek Gene is on the Y chromosome. Although gender styles and technological styles have changed significantly in the last thirty years, the belief that technology is inherently a "guy thing" has remained remarkably intact. This persistence is not merely residual. The mapping of technological agency onto masculinity requires ongoing cultural work.

This paper examines several sites where this cultural work is being done most vigorously, starting with the aggressively pink and blue marketing strategies that US mega-corporations still employ and concluding with the essentialist polemics of Christina Hoff Sommers, author of the recent book *The War Against Boys* (2000).

### SELLING PINK AND BLUE

Gender is to people as water is to fish, sociologist Judith Lorber once observed [1]. The gendering of technology is similarly pervasive and invisible. The assumption that men have the technological "right stuff" (and that women do not) is not simply a historical residue of the time when the only US engineering school was the male-exclusive West Point Academy. It is hardwired into the 21<sup>st</sup> century US cultural infrastructure. For example, consider the *Red Envelope* Father's Day catalog that I received last year. The cover pictures a European-American man and two young boys, presumably his sons. They are all laughing happily as he

allows one of them to pretend-drive his sports car. The first five gifts listed inside the catalog are: a digital tape measure, a cordless air pump, a professional leather tool carrier, a Swiss army auto tool, and a star navigator. In direct contrast, the *Red Envelope* Mother's Day catalog had featured such gifts as a lavender heart wreath, a tranquility fountain, a heart toggle bracelet, and a pair of fuzzy pink slippers.

The story that the objects and images in the *Red Envelope* Father's Day catalogue tell is quite clear: Male identity is inseparable from technological agency—the ability to use tools to make things happen. So, too, is male happiness. The cover photo acts out in miniature sociologist Judy Wajcman's assertion that, historically, men have tended to bond with each other around machines in ways that exclude women [2]. Although there are many pictures throughout the catalog of Dad interacting with his Sons, there are no images at all of Dad and his Daughters.

The Red Envelope Father's Day and Mother's Day catalogs illustrate the paradoxical durability of pink/blue gender stereotyping. US women today probably spend as much time partitioning their hard drives as they do crocheting tea cozies. Yet we continue to employ the "snakes n snails/sugar n spice" dichotomy as an everyday organizing principal despite the fact it is recognizably false to our lived experience. This is largely because binary thinking is so convenient, both existentially commercially. An undifferentiated yellow world, in which human traits could float free, would be more interesting than the Ken and Barbie world we choose to live in; but it would also entail more anxiety. A binary gender scheme promises predictability, a state that many of us confuse with "security." Predictability also significantly reduces risks and costs for retail marketers who consequently encourage us to think pink and blue as much as possible. Thus, despite an increase in the number of unisex bathrooms and other radical social changes that have taken place in US culture over the last thirty years, on test after test, Americans continue to characterize men and women in the same starkly bi-polar terms that their grandparents did: Men are dominant, aggressive, independent, objective, competitive; women are emotional, subjective, understanding, empathetic.

In the early 1970's, psychologist Sandra Bem developed the Bem Sex Role Inventory (BSRI) in order to test her theory that "psychological androgyny" was the healthiest human state. The consensus at the time was that healthy

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psychological functioning required congruence between one's self-definitions and the prevailing cultural norms for one's sex. (Girls were expected to be "feminine"; boys, "masculine.") Gender aschematic individuals were typed as deviant. Before the BSRI, instruments treated masculinity and femininity as opposite poles of the same scale, making it impossible even to measure androgyny. Bem's innovation was to employ two separate scales. Using a group of northern California college students as a cultural test-bed, she culled out a set of 20 adjectives that were strongly marked as stereotypical masculine traits and 20 adjectives that were strongly marked as feminine. She added a third set of 20 words that were not strongly associated with either gender. On the BSRI, subjects use a seven point scale to rate how well each of these 60 adjectives describes them [3].

For the last 25 years, I have administered the BSRI to my students at the New Jersey Institute of Technology. Over that time, there have been significant changes in response. For example, unlike Bem's northern California students of the 1970's, most of my students today do not regard the word athletic as strongly marked for gender. Women students in particular bristle at the adjectives gullible and childlike. However, both male and female students continue to validate the underlying binary construct. They still tend to define men as instrumental and women as affective—and to define instrumentality and affect as opposites. Since in the contemporary world, instrumentality is canalized through technological objects (the car, the computer), the attribution of greater affective competence to women inherently marks them as technologically incompetent. In the zero-sum game of gender stereotyping, a technologically adept woman is the exception that proves the rule.

Given the prevalence of female kick-boxers and leather girls in the current mass media (e.g. Shania Twain in her "I'm Going to Get you Good" video), one might expect increased reporting of androgyny on the BSRI. And, indeed, my students are much more tolerant of gender aschemia than they were 25 years ago...but only for women. Androgyny is a trend that flows one way, from fem to butch, never the other way around. Both males and females in my classes tend to support females in their desire to claim such traits as self-reliance, independence, assertiveness, etc; but those characteristics remain defined as inherently masculine even when women are said to possess them. In other words, today it's ok for girls to wear guys' clothes.

It's still not ok for guys to wear girls' clothes, however. Not ok at all. Although every semester, there are one or two male students who insist that BSRI item #56 ("loves children") applies to them and not just to women, most males in my classes become visibly nervous at the prospect that their Bem score might be "androgynous" or "undifferentiated." For the majority of them, androgynous means homosexual, and homosexual means female-man. Even students who abhor discrimination against gays still generally construe male homosexuality as a developmental failure that results in gender "inversion." In this sense,

homophobia is inseparable from gynophobia. The feedback loop between the two continually reinforces the binary system that produced it.

In such a system, masculinity and femininity are constructed as interdependent terms. They only have meaning in relationship to each other. That is, being a boy means not being a girl...just as being "white" means not being "black". The problem, of course, is that it is impossible to prove a negative. In this sense, both "masculinity" and the equation of masculinity and technology are fragile concepts that require constant propping up. If a woman could be instrumental, and thus technological, and still be womanly, then traditional gender categories themselves would become unstable. Men would be in danger of having no separate ground to stand on in a zero sum game in which separation is the sine qua non of identity survival. That is why the separation of femininity and technological competence is such a persistent feature of US popular culture.

### FEMALE GAIN IS MALE LOSS

Contemporary mass media is permeated by the fear that any gain in agency by women will be accompanied by a commensurate loss in identity-as-agency by men. Today, as decades ago, stories about instrumental/technological women tend to foreground everything about them that is atechnological—i.e., nurturing. For example, in 1984, Good Housekeeping magazine ran a photo spread on two female astronauts, Dr. Rhea Seddon and Dr. Anna Fisher, both highly-trained flight surgeons. The layout was entitled "First Mothers to Fly in Space" [4]. (By the same token, astronaut Alan Shepard was "the first US father to fly in space," but he was never billed that way.) La plus ca change, la plus c'est la meme chose. Nineteen years later, the MSNBC anchorman ticked off the credentials of the seven astronauts who had just died in the crash of the space shuttle Columbia: An Air Force pilot/mechanical engineer; a doctor/gymnast; a Navy aviator/track team star; an Air Force colonel with advanced degrees in physics and chemistry. "There was even a mom onboard," he added. The "mom" in question was Commander Laurel Salton Clark, a naval flight surgeon specializing in problems affecting crews of nuclear submarines. An experienced diver, she had performed numerous medical evacuations from US submarines, teamed with Navy Seals. She had had advanced aero-medical training as well and had accompanied attack squadrons on deployment in austere environments. In People, Newsweek, and Time, these credentials were invisible, however. Virtually every story viewed Clark through a pink-colored lens, foregrounding her nurturing relationship to her eightvear-old son. Iain.

The 1984 *Good Housekeeping* story coyly suggests that the acquisition of technological expertise by women ("space moms") might alter gender roles. In a "traditional" family portrait, the mom is usually posed with her baby on her lap

while the dad stands protectively behind. However, in the *Good Housekeeping* photo, it is the husbands who are seated in the foreground, each holding a child on his lap, while astronauts Seddon and Fisher stand in the background, behind, and above, their mates. This ostensibly emasculating configuration is a joke, of course, a joke whose humor flows from the impossibility of real structural change. The positioning of the women seems liberating, but it merely confirms the notion that technological exploration and emotional nurturing are antithetical. You can have one only by giving up the other.

The construction of gender as a zero-sum game in which female gain is male loss is a consistent feature of the US advertising industry as well. Consider a recent TV commercial from Capital One, for instance. The commercial begins with a man being thrown around his living room by a giant, green Shrek-like monster who represents the enormous interest rates that the man is paying on his credit card debt. The monster spins him overhead and throws him onto a couch where he is buried in a pile of kids' toys. Seconds later, the man's wife enters the room carrying a Capital One No Hassles Card and levels the monster with a flying karate kick. As she explains the advantages of the card, the monster shrinks to the size of a small toad. She flicks it across the floor with her finger. The view cuts to a shot of the husband reacting in amazement as pokes his head up from under the toys. A make-believe tiara has landed askew on his head, along with a tiny pink feather boa. He now speaks in a high squeaky voice. At end of the ad, the woman impales the monster on the shaft of a pencil (eraser side up).

There are several ways to read this popular culture text. It ostensibly presents itself as a liberating feminist fable. The woman in the ad has superior intelligence and superior agency. She knows more about finances than her husband does. She is athletic, powerful, protective; she makes the household decisions. The implicit tradeoff for her acquisition of power is her husband's emasculation, however. A reverse Cinderella, he ends up doing a transvestite impersonation of his daughter's dress-up impersonation of his wife, as if he were a little girl wearing mommy's big shoes. This Revenge-of-the-Stepford-Wives fantasy is presumably designed to flatter female consumers, seducing them on Capitol One's behalf. ("You've Come a Long Way, Baby.") It teaches a more general lesson as well, however: there are only two positions on the gender game board, and thus women can't win for losing. When the wife comes flying feet first into the living room, everything changes...and yet nothing has changed. The roles are reversed, but the binary construction of gender remains intact. Powerlessness and passivity are still colored pink. The woman achieves power only by "acting like a man" (the karate kick).

#### MARKETING GENDER AT TOYS R US

The fears that Capital One toys with in its TV commercial are built into the product at Toys R Us. The \$30 billion US toy industry has long exploited a bipolar view of gender in order to maintain market stability. Although industry defenders insist that companies would love to be able to sell the same toy to both boys and girls, in fact it would be much more difficult to predict which toys would be successful in a cultural milieu in which gender was not strongly marked. An industry Website makes this clear, advising novice entrepreneurs that, "Selling the maximum number of units per household means designing sports toys for boys [and] home-making activities for girls..." [5]. In 1999, Toys R Us, concerned by a drop in quarterly revenues, inaugurated a particularly aggressive version of pink/blue marketing. Although its "Girls World" and "Boys World" signs have since come down, thanks to protests from women's groups, Toys R Us remains dedicated to reinforcing conservative gender stereotypes in order to increase the efficiency of its retail operation.

The recent merger of the Toys R Us.com E-business with the online mega-store Amazon.com gives pink/blue marketing even greater scope. Although it is possible to search for toys by age, brand, or merchandize type, the Boys Store/Girls Store dichotomy still structures the site. "Dolls" and "action figures" are presented as different categories. The "Gifts for Girls" pages have been changed from pink to green tones, presumably to ward off protests; but the message they contain is familiar: nurturing is to females as instrumentality is to males.

As of Christmas 2002, the Toy R Us/Amazon.com "Gifts for Boys" web pages contained 903 toys and games. In comparison, the "Gifts for Girls" pages contained only 802 items, a number that makes a self-fulfilling prophecy of the historical industry view that boys buy more toys than girls do and have more toys bought for them [6]. The gender marking of toys begins in infancy. On the Toys R Us/Amazon.com site, 20% of gifts designated appropriate for girl babies (birth to 12 months) are categorized as gender-specific (i.e., not duplicated in the "Gifts for Boys" section). Encouraging parents to mark their baby's gender in clichéd terms from the very beginning of its life, the site suggests a Barbie's Play Beauty Set with Fashion Bag for female infants and a Probuilders Space Shuttle for male infants. In the 5 to 7 year category, the gap widens to 51% gender specific toys in the boys' section and 48% in the girls' section. Again, the suggestions are predictable: Tech Link Aviator 500 Duplex Walkie-Talkies for boys and a Li'l Chefs Fun in the Kitchen Cooking Set for girls. At age 12-14, the dichotomy is nearly absolute: 90% of the boys' toys and 78% of the girls' toys are gender-specific.

More importantly, only 3% of the toys and games offered to pre-teen girls have anything to do with science or technology. From age one straight through to age 14, there is a dramatic gap between the percentage of "boy toys" and the percentage of "girl toys" that are technological, even when *technology* is defined in the broadest possible terms to

include all machine-oriented toys such as play refrigerators and stoves. For two-year-olds, 36% of the boy toys but only 9% of the girl toys are technological. In the crucial 8-9 age category, the gap is 40% to 16%. If one eliminated the kitchen equipment and miniature vacuum cleaners, etc., the figures for girls would be even more abysmal.

In addition, virtually all of the tech toys in the girls' section of the Website position the child as a domestic/commercial user. By contrast, the boys' tech toys encourage design and conceptual exploration—for example, the 130-in-one Electronic lab kit for boys versus the Shop with Me Barbie Cash Register for girls.

Girls are not barred from access to technologically-oriented toys, of course; but they generally have to go into the "Boys World" to find them. Like most corporations, Toys R Us follows the "old retailing rule of thumb that you can sell a 'boy' product to a girl, but not the reverse" [7]. That is, boys and some girls will want a "Commander Neil Armstrong Playschool Spacesuit," but no boys at all will want a "Commander Eileen M. Collins Playschool Spacesuit," even though the suits in question are identical in design. That is why there are no Commander Collins space toys being manufactured.

#### THE FEAR OF PINK

To put the matter another way: the toy industry adroitly exploits for profit the homophobic/gynophobic "fear of pink" that structures US popular culture—the fear that masculinity will be contaminated and drained away unless its borders are rigidly maintained and policed. It persuades parents and children that they are buying "normality" when they are buying its products. That reassurance resonates in the blue frame marking the entrance to the "Gifts for Boys" section of the Amazon.com Website. (No green disguise for boys.) It is even more palpable in the comments of the neoessentialists that have emerged to defend gender-marketing from the "feminists" (or "Femi-Nazis," as Russ Limbaugh likes to say). For example, Betsy Hart, writing in the Jewish World Review, bristles, "After all, the typical boy is not going to be interested in trying one prom dress after another on Barbie until the 'perfect' ensemble for that special occasion is chosen. (Let's face it—almost any parent of a little boy would be pretty concerned if he did.) Likewise, the typical girl will have little use for something called Micro Machine Night Attack Play Set. So, the thinking goes, why not make things easier for everybody and arrange the stores to reflect the real world preferences of children?" [8].

"Making things easier for everybody" is the rule in virtually every other sphere of child merchandizing as well. The Barnes and Noble Bookstore in my old neighborhood, Park Slope, Brooklyn (NY), a decidedly liberal venue, uses the same pink/blue tactics as Toys R Us. The cozy, carpeted reading area at the center of the store is divided into two dichotomous hemispheres: blue boxes with Thomas and Friends toy train cars and related books on the left; pastel

pink and lavender Angelina Ballerina books and products on the right. The science and technology section is small and located in a rear corner, on the opposite side of the store from the "Cool Girls, Cool Books" section which features the Mary-Kate and Ashley series (*The Facts About Flirting*, *My Best Friend's Boyfriend*, e.g.), among others.

There are some good sci/tech choices for girls, if one looks carefully. For example, Kate Hayden's beginning reading book, Astronaut Living in Space (2000), reverses the usual male-as-human-norm approach, using a female mission specialist ("Linda") to illustrate key technological processes (e.g., a space walk to repair an orbiting telescope), without marking her gender as anything unusual. Linda is an astronaut, not a "female astronaut." However, traditional stereotyping of technology as both ineluctably male and ineluctably nerdy still prevails to a daunting degree. For instance, consider Scholastic's Dexter's Laboratory book series, based on a popular Cartoon Network show featuring a grade school "pathological-techno-fetishist-with-socialdeficit."

Volume #4, I Dream of Dexter (2003), pits the "boy genius" against his evil doppelganger, the mad scientist "Mandrake," in a race to design a 'psionic helmet' to control dreams. Dexter fantasizes about winning the Nobel Prize—if he can only keep his pesky sister. Dee Dee, out of his laboratory. Dee Dee's big dream is the impending wedding of her peppermint pink toy pony, Wishing Star, to Prince Prancelot. "Dee Dee, I don't have time for pastel animal weddings in make-believe kingdoms," Dexter pouts. "I'm doing Science" [9]. Dee Dee has some traditional female leverage, however; Mandrake has a crush on her; so Dexter reluctantly decides to ask her to help him defeat his archrival. "Slowly, Dexter opened the door of Dee Dee's room. Bright pink assaulted his eyes. Everything was fluffy. Except the stuff that was frilly..... Dexter took a deep breath and uttered the eight words he thought he would never, ever say. 'Dee Dee, would you...come into my lab, please?"" [10]. In the end, Dee Dee's female charms help Dexter beat Mandrake; and, in return, he uses science to help her achieve her dream equine wedding. The end.

It is possible to recuperate some meaning here, of course. Like Dilbert, Dexter is a comic butt who essentially undermines male-inflected fantasies of power-though-technology, disclosing them as infantile. But the game is hardly worth the cost. The Dexter series reinforces two cultural memes that do not need additional support: 1) that people who like people don't like science and technology; 2) that girls are a-technological dreamers while boys are technological doers.

At first glance, the wildly popular Harry Potter book/film series seems to offer a progressive alternative to Dexter and Dee Dee. The most intelligent of the three main Potter characters is "Hermione Granger," a pre-teen girl who is bold, brave, commanding, and replete with technomagical agency. Eschewing pink pony weddings and frills, she uses her smarts and object-craft to save her two male

companions over and over again. She seems to be a perfect role model—a culturally significant splintering of pink/blue stereotypes.

The stakes are high. The Harry Potter series consumes the attention of children (and their parents) around the world. Author J. K. Rowling's has sold over 124 million copies of her four Potter books. The first Harry Potter film, *The Sorcerer's Stone*, is the second most successful movie ever made, grossing nearly \$1 billion world-wide [11].

The main character is a Cinderella-like orphan ("Harry Potter") who has inherited magical powers. Harry is rescued from abusive relatives and taken to Hogwarts School of Witchcraft and Wizardry so that he can learn to properly control the forces within him. At Hogwarts, he becomes best friends with two other students, Hermione and "Ronald Weasley," a good-natured but somewhat klutzy boy who plays Watson to Harry's Sherlock Holmes. Like characters in a computer-role playing game, together the three children solve many puzzles, pass through many dangers, and bash many monsters on their quest to prevent the arch-villain from achieving immortality.

The metaphorical equation of magical power with technological power is made clear at the beginning of the first Harry Potter film when two boys press their faces against a shop window, admiring the latest "Nimbus 2000" model broomstick. Like the broomstick, the magical wands in use at Hogwarts seem to reiterate the traditional view that such power is phallic, the province of males. And yet, initially at least, it is Hermione who is the most adept at wandsmanship. In class, she is always the first to raise her hand with the correct answer (though not necessarily the first to be called on). It is Hermione's research that allows the three children to pinpoint the location of the Sorcerer's Stone. "Mental, that one. A good head on her," admits Ron, though he is a bit intimidated by her.

Unfortunately, behind this façade of female technomagical power, Rowling and Warner Brothers have planted a series of disempowering clichés. Hermione is rigid, a compulsive know-it-all. She utterly lacks humor—an absence that cues an ancient sexist cliché about smart and powerful women. The text casts her as a kind of miniature Rosalind Franklin. She is saved from spinsterly isolation only because, unlike the originals, this Crick and Watson turn out to be such nice guys.

Hermione acts out another, rather different trope of female disempowerment about a quarter of the way through the story. In 1950's SF monster films, female scientists are often set up as authorities on arcane biological subjects, only to be cut down to size later in the picture, reduced to hysterical damsels in distress by a menacing beast (cf. *Cosmic Monsters* 1958, e.g.). This is pretty much what happens to Hermione. A giant troll escapes from confinement and stalks her in the Hogwarts girls' locker room. Suddenly helpless, she screams like Fay Wray in the arms of King Kong. Harry and Ron have to intervene to save her.

Granted, Hermione later saves Harry and Ron, several times, notably when the children fall into a pit filled with a protoplasmic, tentacled plant; but here, too, she acts out a cliché. Her advice-to "relax" and yield to the plant's embrace—suggests a 'natural female' understanding of the flesh. More and more, Hermione becomes aligned with the body. In the next sequence, in which the children are trapped on a giant chessboard with animated playing pieces, Hermione is nervous and virtually paralyzed. Now bonded brothers, Harry and Ron enter into mental and physical combat with the robotic chessmen while Hermione watches. Ron ultimately sacrifices himself so that Harry can complete his quest. Harry has to "go on alone." In this Oedipal narrative, Hermione is on the sidelines; and she knows it. "You're a great wizard," she tells Harry, suddenly playing the Little Woman behind the Big Man. "Not as great as you," he responds modestly. "Me?," she replies. "Books and cleverness."

And she's right. From the beginning, Hermione works too hard at her expertise and techno-magical agency, driven to be the Perfect Girl. She over-compensates, over-achieves. In contrast, Harry really doesn't have to work at all. He is gifted, fated, hardwired for techno-magical power. The wand and the cloak of invisibility that canalize his latent power are passed down to him from his father. ("Technology is a culture that expresses and consolidates relations among men," as Judy Wajcman is fond of noting) [12]. Harry is a "natural"; he has the "right stuff." Hermione doesn't. It's as simple as that.

#### THE NEW ESSENTIALISM

For an increasing number of public commentators, the reason that 90% of the nation's engineers are male is equally simple. Technology is natural for men and not for women. In defending this view, magazine writer Betsy Hart (see above) cites Dr. Christina Hoff Sommers, a resident scholar at the right-wing American Enterprise Institute in Washington, D.C. Sommers' agenda is clear from the titles of her books: Who Stole Feminism? How Women have Betrayed Women (1995) and The War Against Boys: How Misguided Feminism is Harming Our Young Men (2000). In the latter book especially, she exploits parental fears that the masculinity of little boys is in danger of being drained away by sinister "change agents" such as WEPAN. Sommers' principal targets are the American Association of University Women, the Wellesley College Center for Research on Women, and Harvard gender studies professor Carol Gilligan, whom she accuses of trying to "resocializ[e] boys in the direction of femininity." According to Sommers, the principal feminist goal is "getting little boys to play with dolls" [13].

An ultra-conservative, Sommers is deeply committed to the essentialist view that gender is hardwired into the human chromosomes. Overstating the implications of Doreen Kimura's work (and ignoring divergent research, e.g. Baenninger and Newcombe) [14], Sommers cites "growing evidence that children's play preferences are, in large part, hormonally determined" [15]. Sommers insists that the pink and blue dichotomies of Toys R Us simply mirror nature's design. "Go to any large toy mart and you will find sections for boys and sections for girls answering to their different preferences. For boys, gadgets and action are the things, while girls prefer dolls, glamour, and playhouses....Mother nature is not a feminist" [16]. In other words, technological agency is to males as emotional nurturing is to females.

According to Sommers, the exception that proves the rule is that "abnormal" little girls suffering from congenital adrenal hyperplasia (CAH) do like "boys' toys," e.g., trucks rather than dolls. By clear implication, women engineers and computers scientists are abnormal, too. Sommers is quite explicit about this. "There will always be more women than men who want to be kindergarten teachers rather then helicopter mechanics" [17]. The paucity of women in technological disciplines is an inevitable result of "innate, hardwired" male-female differences, e.g., male superiority in "spatial reasoning" [18]. In short, Christina Hoff Sommers' advice to WEPAN is "give it up!"

If WEPAN chooses not to give up—if, indeed, we persist in pursuit of our goal of "50/50 by 2020"— we must recognize the political nature of our work and seek political allies. Ideologues such as Sommers and her think tank colleagues work hard and stay on message. They have had enormous success in dominating the conversation in the media. They write regularly for *The Wall Street Journal, The Washington Post*, and *USA Today* and appear on TV talk shows such as *Nightline, Crossfire*, and *Oprah*. Last fall, 60 *Minutes* gave Sommers uncontested access to an audience of over 14 million people (October 31, 2002). Asking for equal time reactively is not enough. WEPAN needs to be part of a proactive, trans-organizational US media campaign designed to the counter the renewed currency of gender essentialism.

At the local level, in the schools and colleges, WEPAN affiliates need to keep doing what they have always done best: to identify, channel, and support young women who have demonstrated an interest in science/technology. If we really want *parity*, however, WEPAN nationally will need to work with disparate groups to achieve a cultural paradigm shift, deconstructing the ancient fear that males lose when females gain.

At the same time, we need to collaborate with others on seeding the mass media with win-win gender scenarios, males and females doing technology together. Oddly enough, reality TV may offer the best opportunities, simply because cable shows are relatively inexpensive to produce (as opposed to major motion pictures). TLC's *The Junkyard Wars* offers one possible venue; but a better paradigm might be a technological version of the BBC/PBS NSF-sponsored series *Rough Science*. The survival-style premise involves transporting five scientists, two women and three men, to an isolated location (desert island, e.g.). They are presented with a series of tasks which they must complete within three

days using simple tools and indigenous materials. Unlike *Junkyard Wars*, whose competitive format tends to replicate the "war of the sexes," on those rare occasions when women are present at all, *Rough Science* is predicated on collaborative interaction. When one innovator wins, everybody wins. It is one of the few configurations in modern mass media where there seems to be enough technological agency to go around—a formula that we desperately need to replicate if we are really going to achieve "50/50 by 2020."

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