appeals to marketers more than to me, concerned as I am about the condition of the planet and my soul. I don't know about you, but I need less temptation to buy things, not more. And I don't want to be constantly sold to.

In In the Absence of the Sacred, Jerry Mander lists "Ten Recommended Attitudes About Technology." Along with number one ("Since most of what we are told about new technology comes from its proponents, be deeply skeptical of all claims") and number two ("Assume all technology guilty until proven innocent"), my favorite is number five: "Never judge a technology by the way it benefits you personally. Seek a holistic view of its impacts. The operative question is not if it benefits you, but who benefits most? And to what end?"

Since people appear to be more enslaved in their work and home lives than ever before, we could ask whether the problems their computers and electronic media seem to alleviate can be traced to the advent of computers themselves. Have computers and television speeded up economic life and undermined the social fabric?

None of the electronic technologies would have been here if not for their utility as pillars of the consuming society. An ambulance is a "good" use for an internal combustion engine, but it takes a whole society of energy-guzzling car buyers addicted to mobility and speed to provide commercial reasons to make an internal combustion engine industry happen.

We are presently being assured that stepping into the virtual reality of the information superhighway and opening our minds to it is a good thing. Doubtless there will be many examples of this good: Grandparents will be able to see the grandkids on the videophone. The disabled will have more opportunities to be included.

And we will hear more and more about "virtual communities"—an exciting concept because, after all, the real ones have nearly disappeared. Perhaps almost-real ones will suffice, but I am unwilling to be part of a technology that can only exist if it drives me to consume more, which drains my will to seek out real community.

A woman at an organic farming conference I attended told the program speaker, who was against most new technologies, that even though she, too, thought these technologies might be harmful to the social fabric, still she felt she had to keep up with them: "Since this is what's going on in the world, don't we have to participate, just to survive?" No one could answer her then, and I have only part of the answer myself. I can only say I'm unwilling to drive the superhighway, and I sense that many others are deciding whether to continue on this ride or find an exit. On the other hand, the people I glimpse in their cubicles, or sitting around their TV hearths at home, don't seem too dissatisfied. What will wake them up? How can I help them reverse direction and get back out of the machine?

I have no interest in being part of a "movement" to "ban" or "boycott." To do that, I would have to become like my friends in the ecology movement, connected to computer networks in order to exchange information and get organized. I see the technology encouraging in them precisely the way of relating to lived experience that has brought about the crises they seek to alleviate.

My strategy for exiting the information superhighway is simply never to enter it. The only "direct action" I can take is to live a real life, in real time, without viewing or networking or overconsuming anything. No input, no output. And I am going to tell anyone who will listen that real life, in a real community, in real reality, is better than the virtual reality of the information superhighway any day of the week.

Gender Differences on the Internet

Bringing Familiar Baggage to the New Frontier

Susan Herring teaches linguistics at the University of Texas at Arlington. Her special interests are language and gender and the study of computer-mediated communication, so the following presentation came naturally to her. She offered it first as a talk at the annual meeting of the American Library Association, and then she made the talk available through the computer via the World Wide Web.

1. Introduction

Although research on computer-mediated communication (CMC) dates back to the early days of computer network technology in the 1970s, researchers have only recently begun to take the gender of users into account. This is perhaps not
surprising considering that men have traditionally dominated the technology and have comprised the majority of users of computer networks since their inception, but the result is that most of what has been written about CMC incorporates a very one-sided perspective. However, recent research has been uncovering some eye-opening differences in the ways men and women interact "on-line," and it is these differences that I will address in my talk today.

My basic claim has two parts: first, that women and men have recognizably different styles in posting electronic messages to the Internet, contrary to claims that CMC neutralizes distinctions of gender; and second, that women and men have different communication ethics—that is, they value different kinds of on-line interactions as appropriate and desirable. I illustrate these differences—and some of the problems that arise because of them—with specific reference to the phenomenon of "flaming."

2. Background

Since 1991 I've been lurking (or what I prefer to call "carrying out ethnographic observation") on various computer-mediated discussion lists, downloading electronic conversations and analyzing the communicative behaviors of participants. I became interested in gender shortly after subscribing to my first discussion list, LINGUIST-L, an academic forum for professional linguists. Within the first month after I began receiving messages, a conflict arose on the list (what I would later learn to call a "flame war") in which the two major theoretical camps within the field became polarized around an issue of central interest. My curiosity was piqued by the fact that very few women were contributing to this important professional event; they seemed to be sitting on the sidelines while men were airing their opinions and getting all the attention. In an attempt to understand the women's silence, I made up an anonymous survey which I sent to LINGUIST-L asking subscribers what they thought of the discussion and if they hadn't contributed, why not.

3. Initial Observations

The number one reason given by both men and women for not contributing to the LINGUIST discussion was "intimidation"—as one respondent commented, participants were "ripping each other's lungs out." Interestingly, however, men and women responded differently to feeling intimidated. Men seemed to accept such behavior as a normal feature of academic life, making comments to the effect that "Actually, the barbs and arrows were entertaining, because of course they weren't aimed at me." In contrast, many women responded with profound aversion. As one woman put it:

That is precisely the kind of human interaction I committedly avoid. (...) I am dismayed that human beings treat each other this way. It makes the world a dangerous place to be. I dislike such people and I want to give them WIDE berth.

When I analyzed the messages in the thread itself, another gender difference emerged, this time relating to the linguistic structure and rhetoric of the messages. A daunting 68% of the messages posted by men made use of an adversarial style in which the poster distanced himself from, criticized, and/or ridiculed other participants, often while promoting his own importance. The few women who participated in the discussion, in contrast, displayed features of attenuation—hedging, apologizing, asking questions rather than making assertions—and a personal orientation, revealing thoughts and feelings and interacting with and supporting others.

It wasn't long before I was noticing a similar pattern in other discussions and on other lists. Wherever I went on mixed-sex lists, men seemed to be doing most of the talking and attracting most of the attention to themselves, although not all lists were as adversarial as LINGUIST. I started to hear stories about the witness men taking over and dominating discussions even of women-centered topics on women-centered lists. In contrast, on the few occasions when I observed women attempting to gain an equal hearing on male-dominated lists, they were ignored, trivialized, or criticized by men for their tone or the inappropriateness of their topic. It wasn't until I started looking at lists devoted to women's issues, and to traditionally "feminized" disciplines such as women's studies, teaching English as a second language, and librarianship, that I found women holding forth in an amount consistent with their numerical presence on the list. I also found different interational norms: little or no flaming, and cooperative, polite exchanges.
4. Different Styles

As a result of these findings, I propose that women and men have different characteristic on-line styles. By characteristic styles, I do not mean that all or even the majority of users of each sex exhibit the behaviors of each style, but rather that the styles are recognizable—even stereotypically—gendered. The male style is characterized by adversariality: put-downs, strong, often contentuous assertions, lengthy and/or frequent postings, self-promotion, and sarcasm. Below are two examples, one from an academic list (LINGUIST) and the other from a non-academic list (POLITICS). 4

1) [Jean Linguiste's] proposals towards a more transparent morphology in French are exactly what he calls them: a farce. Nobody could ever take them seriously—unless we want to look as well at pairs such as "père-mère", "coq-poule" and defigure the French language in the process.

[strong assertions ("exactly, "nobody"), put-downs ("JL's proposals...are a farce"; implied: "JL wants to defigure the French language")]

2) >yes, they did...This is why we must be allowed to remain >armed...who is going >to help us if our government >becomes a tyranny? no one will.
> oh yes we "must" remain armed. anyone see day one last night abt charlestown where everyone's so scared of informing on murderers the cops have given up? where the reply to any offense is a public killing? knowing you're not gonna be caught cause everyone's so afraid to be a witness?
> yeah, right, twerp.
>  —[Ron] "the Wise"—
> what a joke.

[sarcasm, name calling, personal insults]
The second example would be characterized as a "flame" by most readers because of its personally offensive nature.

Less exclusively male-gendered but still characteristic of male postings is an authoritative, self-confident stance whereby men are more likely than women to represent themselves as experts, e.g., in answering queries for information. The following example is from NOTIS-L.

3) The NUGM Planning meeting was canceled before all of this came up. It has nothing to do with it. The plans were simply proceeding along so well that there was no need to hold the meeting. That is my understanding from talking to NOTIS staff last week.

[authoritative tone, strong assertions ("nothing," "simply," "just")]
The female-gendered style, in contrast, has two aspects which typically co-occur: supportiveness and attenuation. "Supportiveness" is characterized by expressions of appreciation, thanking, and community-building activities that make other participants feel accepted and welcome. "Attenuation" includes hedging and expressing doubt, apologizing, asking questions, and contributing ideas in the form of suggestions. The following examples from a non-academic list (WOMEN) and an academic list (TEST-L) illustrate each aspect:

4) >[Aileen].
>
> >I just wanted to let you know that I have really enjoyed all your posts about
> >Women's herstory. They have been extremely informative and I've learned alot
> >about the women's movement. Thank you!
>
> >-[Erika]
> DITTO!!! They are wonderful!
> Did anyone else catch the first part of a Century of Women?
> I really enjoyed it.
> Of course, I didn't agree with everything they said...but it was really informative.
> [Roberta]--------------------------------------------------

[appreciates, thanks, agrees, appeals to group]

5) [...] I hope this makes sense. This is kind of what I had in mind when I realized I couldn't give a real definitive answer. Of course, maybe I'm just getting into the nuances of the language when it would be easier to just give the simple answer.

Any response?

[hedges, expresses doubt, appeals to group]
The female style takes into consideration what the sociologist Erving Goffman called the "face" wants of the addressee—specifically, the desire of the addressee to feel ratified and liked (e.g., by expressions of appreciation) and her desire not to be imposed upon (e.g., by absolute assertions that don't allow for alternative views). The male style, in contrast, confronts and threatens the addressee's "face" in the process of engaging him in agonistic debate.

Although these styles represent in some sense the extremes of gendered behavior, they have symbolic significance above and beyond their frequency of use. For example, other users regularly infer the gender of message posters on the basis of features of these styles, especially when the self-identified gender of a poster is open to question. Consider the following cases, the first involving a male posting as a female, the second a suspected female posting as a male:

(i) A male subscriber on SWIP-L (Society for Women in Philosophy list) posted a message disagreeing with the general consensus that discourse on SWIP-L should be non-agonistic, commenting "there's nothing like a healthy denunciation by one's colleagues every once in a while to get one's blood flowing, and spur one to greater subtlety and exactness of thought." He signed his message with a female pseudonym, however, causing another (female) subscriber to comment later, "I must confess to looking for the name of the male who wrote the posting that [Suzi] sent originally and was surprised to find a female name at the end of it." The female subscriber had (accurately) inferred that anyone actively advocating "denunciation by one's colleagues" was probably male.

(ii) At a time when one male subscriber had been posting frequent messages to the WOMEN list, another subscriber professing to be a man posted a message inquiring what the list's policy was towards men participating on the list, admitting "I sometimes feel guilty for taking up bandwidth." The message, in addition to showing consideration for the concerns of others on the list, was very attenuated in style and explicitly appreciative of the other: "I really enjoy this list (actually, it's the best one I'm on)." That prompted another (female) subscriber to respond, "now that you've posed the question...how's one to know you're not a woman posing this question as a man?" Her suspicion indicates that on some level she recognized that anyone posting a message expressing appreciation and consideration for the desires of others was likely to be female.

* * *

5. Different Communication Ethics

The existence of gendered styles has important implications, needless to say, for popular claims that CMC is anonymous, "gender-blind," and hence inherently democratic. If our on-line communicative style reveals our gender, then gender differences, along with their social consequences, are likely to persist on computer-mediated networks. Entire lists can be generated in their style as well. It is tacitly expected that members of the non-dominated gender will adapt their posting style in the direction of the style of the dominant gender. Thus men on women's special interest lists tend to attenuate their assertions and shorten their messages, and women, especially on male-dominated lists such as LINGUIST and PAGLIA-L, can be contentious and adversarial. Arguably, they must adapt in order to participate appropriately in keeping with the norms of the local list culture. Most members of the non-dominant gender on any given list, however, end up style-mixing, that is, taking on some attributes of the dominant style while preserving features of their native style, e.g., with men often preserving a critical stance and women a supportive one at the macro-message level. This suggests that gender communication styles are deeply rooted—not surprising, since they are learned early in life—and that some features are more resistant to conscious reflection and modification than others.
Why do men flame? The explanation, I suggest, is that women and men have different communication ethics, and flaming is compatible with male ethical ideals. I stumbled upon this realization recently as a result of a survey I conducted on politeness on the Internet. I originally hypothesized that the differences in the extremes of male and female behavior on-line—in particular, the tendency for women to be considerate of the "face" needs of others while men threaten others' "face"—could be explained if it turned out that women and men have different notions of what constitutes appropriate behavior. In other words, as a woman I might think adversarial behavior is rude, but men who behave adversarially might think otherwise. Conversely, men might be put off by the supportive and attenuated behaviors of women.

In the survey, I asked subscribers from eight Internet discussion lists to rank their like or dislike for 30 different online behaviors, including "flaming," "expressing thanks and appreciation," and "overly tentative messages," on a scale of 1 (like) to 5 (dislike). The survey also asked several open-ended questions, including most importantly: What behaviors bother you most on the net?

My initial hypothesis turned out to be both correct and incorrect. It was incorrect in that I found no support whatsoever for the idea that men's and women's value systems are somehow reversed. Both men and women said they liked expressions of appreciation (avg. score of 2), were neutral about tentative messages (avg. about 3), and disliked flaming (although women expressed a stronger dislike than men, giving it a score of 4.3 as compared with only 3.9 for men). This makes male flaming behavior all the more puzzling; should we conclude then that men who flame are deliberately trying to be rude?

The answers to the open-ended questions suggest a different explanation. These answers reveal a gender contrast in values that involves politeness but cannot be described in terms of politeness alone. It seems women place a high value on consideration for the wants and needs of others, as expressed in the following comment by a female net user:

If we take responsibility for developing our own sensitivities to others and controlling our actions to minimize damage—we will each be doing [good deeds] for the whole world constantly.

Men, in contrast, assign greater value to freedom from censorship (many advocate absolute free speech), forthright and open expression, and agonistic debate as a means to advance the pursuit of knowledge. Historically, the value on absolute freedom of speech reflects the civil libertarian leanings of the computing professionals who originally designed the net and have contributed much of the utopian discourse surrounding it; the value on agonistic debate is rooted in the Western (male) philosophical tradition.

These ideals are stirringly evoked in the following quote from R. Hauben (1993) praising the virtues of the Usenet system, on which 95% of the contributors are estimated to be male:

The achievement of Usenet News demonstrates the importance of facilitating the development of uncensored speech and communication—there is debate and discussion—one person influences another—people build on each other's strengths and interests, differences, etc.

One might think that uncensored speech if abused could cause problems, but M. Hauben (1993) explains that there is a democratic way of handling this eventuality:

When people feel someone is abusing the nature of Usenet News, they let the offender know through e-mail. In this manner... people fight to keep it a resource that is helpful to society as a whole.

In daily life on the Internet, however, the ideal of "people fight[ing] to keep [the net] a resource that is helpful to society as a whole" often translates into violent action. Consider, for example, the response of a male survey respondent to the question: "What behaviors bother you most on the net?" (typos are in the original):

As much as I am irritated by [incompetent posters], I don't want imposed rules. I would prefer to "out" such a person and let some public minded citizen fire bomb his house to imposing rules on the net. Letter bombing an annoying individual's feed is usually preferable to building a formal hierarchy of net cops.

Another net vigilante responds graphically as follows:
I'd have to say commercial shit. Whenever someone advertises some damn get-rich-quick scheme and plaster all over the net by crossposting it to every newsgroup, I reach for my "greeting gun mailer crasher" and fire away at the source address.

These responses not only evoke an ideal of freedom from external authority, they provide an explicit justification for flamming—"as a form of self-appointed regulation of the social order, a rough and ready form of justice on the virtual frontier. Thus a framework of values is constructed within which flaming and other aggressive behaviors can be interpreted in a favorable (even prosocial) light. This is not to say that all or even most men who flame have the good of net society at heart, but rather that the behavior is in principle justifiable for men (and hence tolerable) in ways that it is not for most women.

6. Netiquette

Further evidence that flaming is tolerated and justified within a system of male values comes from the content of written rules of network etiquette, or "netiquette," such as are available on many public FTP sites and in introductory messages to new members of some discussion lists. I analyzed the content of netiquette rules from six lists, along with those found in the guidelines for Usenet and in the print publication Toward an Ethics and Etiquette for Electronic Mail by Shapiro and Anderson (1985). What do netiquette rules have to say about flaming?

The answer is: remarkably little, given that it is one of the most visible and frequently complained about "negatives" cited about the Internet. One might even say there is a striking lack of proscription against flaming, except on a few women-owned and women-oriented lists. And in the rare instances where flaming is mentioned, it is implicitly authorized. Thus the guidelines for new subscribers to the POLITICS list prohibit "flames of a personal nature," and Shapiro and Anderson advise "Do not insult or criticize third parties without giving them a chance to respond." While on the surface appearing to oppose flaming, these statements in fact implicitly authorize "flames other than of a personal nature" (for example, of someone's ideas or values) and "insulting or criticizing third parties" (provided you give them a chance to respond!). Normative statements such as these are compatible with male values and male adversarial style; the intimidating rhetoric on LINGUIST and many other lists is not a violation of net etiquette according to these rules. Yet these are behaviors that female survey respondents say intimidate them and drive them away from lists and newsgroups. Can the Internet community afford to tolerate behaviors that intimidate and silence women? This is a question that urgently needs to be raised and discussed net-wide.

7. Conclusions

To sum up, I have argued that women and men constitute different discourse communities in cyberspace—different cultures, if you will—with differing communicative norms and practices. However, these cultures are not "separate but equal" as recent popular writing on gender differences in communication has claimed. Rather, the norms and practices of masculine net culture, codified in netiquette rules, conflict with those of the female culture in ways that render cyberspace—or at least many "neighborhoods" in cyberspace—in hospitable to women. The result is an imbalance whereby men control a disproportionate share of the communication that takes place via computer networks.

This imbalance must be redressed if computer-mediated communication is ever to live up to its much-touted democratic potential. Fortunately, there are ways in which women can promote their concerns and influence the discourse of the net; I will mention three here. First and foremost is to participate, for example, in women-centered lists. Such lists provide supportive fora for women on-line, and are frequently models of cooperative discourse whose norms can spread if subscribers participate in other lists as well. But separatism has its disadvantages, among them the risk of ghettoization. Women must not let themselves be driven by flame throwers away from mainstream, mixed-sex fora, but rather should also actively seek to gain influence there, individually and collectively, especially in fora where metadiscourse about the net itself takes place.

The second way to promote women's interests net-wide is to educate on-line communities about the rhetorical strategies used in intimidating others, and to call people on their behavior and its consequences when they use such strategies. This is already happening on some women-centered
lists such as WMST-L and SWIP-L—aware of the tendency for a single man or group of men to dominate discussions, female subscribers call attention to this behavior as soon as they realize it is happening; interestingly, it is happening less and less often on these lists. Group awareness is a powerful force for change, and it can be raised in mixed-sex fora as well.

Finally, women need to contribute in any way they can to the process that leads to the encoding of netiquette rules. They need to instigate and participate persuasively in discussions about what constitutes appropriate and inappropriate behavior on-line—seeking to define in concrete terms what constitutes "flaming," for instance, since women and men are likely to have different ideas about this. They must be alert to opportunities (or make their own opportunities) to write out guidelines for suggested list protocol (or modifications to list protocol if guidelines already exist) and post them for discussion. No greater power exists than the power to define values, and the structure of the Internet—especially now, while it is still evolving and seeking its ultimate definition—provides a unique opportunity for individual users to influence the normative process.

Indeed, it may be vital that we do so if women's on-line communication styles are to be valued along with those of men, and if we are to insure women the right to settle on the virtual frontier on their own—rather than on male-defined—terms.

Notes
1. A notable exception to this generalization is the work of Sherry Turkle in the 1980s on how women and men relate to computers.
2. For an extreme example of this phenomenon that took place on the soc.feminism Usenet newsgroup, see Sutton (1994).
4. All names mentioned in the messages are pseudonyms.
5. This problem is discussed in Herring (1993a).
6. For example, Kiesler et al. (1984), Kim and Raja (1990), and Shapiro and Anderson (1985).
7. The discussion of politeness and communication ethics here is an abbreviated version of that presented in Herring (In press a, In press b).
8. For other practical suggestions on how to promote gender equality in networking, see Kramarae and Taylor (1993).
9. Cases where this was done, both successfully and unsuccessfully, are described in Herring, Johnson, & DiBenedetto (In press).

References
Herring, Susan; Deborah Johnson; and Tamra DiBenedetto. In press. "This discussion is going too far! Male resistance to female participation on the Internet." In M. Bucholtz and K. Hall (eds.), Gender Articulated: Language and the Socially-constructed Self. New York: Routledge.


