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# Finding One's Own in Cyberspace

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The week the last Internet porn scandal broke, my phone didn't stop ringing: "Are women comfortable on the Net?" "Should women use gender-neutral names on the Net?" "Are women harassed on the Net?" Reporters called from all over the country with basically the same question. I told them all: your question is ill-formed. "The Net" is not one thing. It's like asking: "Are women comfortable in bars?" That's a silly question. Which woman? Which bar?

The summer I was 18, I was the computer counselor at a summer camp. After the campers were asleep, the counselors were allowed out, and would go bar hopping. First everyone would go to Maria's, an Italian restaurant with red-and-white-checked table cloths. Maria welcomed everyone from behind the bar, greeting regular customers by name. She always brought us free garlic bread. Next we'd go to the Sandpiper, a disco with good dance music. The Sandpiper seemed excitingly adult--it was a little scary at first, but then I loved it. Next, we went to the Sportsman, a leather motorcycle bar that I found absolutely terrifying. Huge, bearded men bulging out of their leather vests and pants leered at me. I hid in the corner and tried not to make eye contact with anyone, hoping my friends would get tired soon and give me a ride back to camp.

Each of these bars was a community, and some were more comfortable for me than others. The Net is made up of hundreds of thousands of separate communities, each with its own special character. Not only is the Net a diverse place, but "women" are diverse as well--there were leather-clad women who loved the Sportsman, and plenty of women revel in the fiery rhetoric of Usenet's alt.flame. When people complain about being harassed on the Net, they've usually stumbled into the wrong online community. The question is not whether "women" are comfortable on "the Net," but rather, what types of communities are possible? How can we create a range of communities so that everyone--men and women--can find a place that is comfortable for them?

If you're looking for a restaurant or bar, you can often tell without even going in: Is the sign flashing neon or engraved wood? Are there lots of cars parked out front? What sort of cars? (You can see all the Harleys in front of the Sportsman from a block away.) Look in the window: How are people dressed? We are accustomed to diversity in restaurants. People know that not all restaurants will please them, and employ a variety of techniques to choose the right one.

It's a lot harder to find a good virtual community than it is to find a good bar. The visual cues that let you spot the difference between Maria's and the Sportsman from across the street are largely missing. Instead, you have to "lurk"--enter the community and quietly explore for a while, getting the feel of whether it's the kind of place you're looking for. Although published guides exist, they're not always very useful--most contain encyclopedic lists with little commentary or critical evaluation, and by the time they're published they're already out of date. Magazines like NetGuide and Wired are more current and more selective, and therefore more useful, but their editorial bias may not fit with your personal tastes.

Commonly available network-searching tools are also useful. The World Wide Web is filled with searching programs, indexes, and even indexes of indexes ("meta-indexes"). Although

browsing with these tools can be a pleasant diversion, it is not very efficient, and searches for particular pieces of information often end in frustration. If you keep an open mind, however, you may come across something good.

### **Shaping an Online Society**

But what happens if, after exploring and asking around, you still can't find an online environment that suits you? Don't give up: start your own! This doesn't have to be a difficult task. Anyone can create a new newsgroup in Usenet's "alt" hierarchy or open a new chat room on America Online. Users of Unix systems can easily start a mailing list. If you have a good idea but not enough technical skill or the right type of Net access, there are people around eager to help. The more interesting question is: How do you help a community to become what you hope for? Here, I can offer some hard-won advice.

In my research at the MIT Media Lab (working with Professor Mitchel Resnick), I design virtual communities. In October of 1992, I founded a professional community for media researchers on the Internet called MediaMOO. Over the past three years, as MediaMOO has grown to 1,000 members from 33 countries, I have grappled with many of the issues that face anyone attempting to establish a virtual community. MediaMOO is a "multi-user dungeon" or MUD--a virtual world on the Internet with rooms, objects, and people from all around the world. Messages typed in by a user instantly appear on the screens of all other users who are currently in the same virtual "room." This real-time interaction distinguishes MUDs from Usenet newsgroups, where users can browse through messages created many hours or days before. The MUD's virtual world is built in text descriptions. MOO stands for MUD object-oriented, a kind of MUD software (created by Pavel Curtis of the Xerox Palo Alto Research Center and Stephen White, now at InContext Systems) that allows each user to write programs to define spaces and objects.

The first MUDs, developed in the late 1970s, were multiplayer fantasy games of the dungeons-and-dragons variety. In 1989, a graduate student at Carnegie Mellon University named James Aspnes decided to see what would happen if you took away the monsters and the magic swords but instead let people extend the virtual world. People's main activity went from trying to conquer the virtual world to trying to build it, collaboratively.

Most MUDs are populated by undergraduates who should be doing their homework. I thought it would be interesting instead to bring together a group of people with a shared intellectual interest: the study of media. Ideally, MediaMOO should be like an endless reception for a conference on media studies. But given the origin of MUDs as violent games, giving one an intellectual and professional atmosphere was a tall order. How do you guide the evolution of who uses the space and what they do there?

A founder/designer can't control what the community ultimately becomes--much of that is up to the users--but can help shape it. The personality of the community's founder can have a great influence on what sort of place it becomes. Part of what made Maria's so comfortable for me was Maria herself. She radiated a warmth that made me feel at home.

Similarly, one of the most female-friendly electronic communities I've visited is New York City's ECHO (East Coast Hang Out) bulletin board, run by Stacy Horn. Smart, stylish, and deliberately outrageous, Horn is role model and patron saint for the ECHO-ites. Her outspoken but sensitive personality infuses the community, and sends a message to women that it's all right to speak up. She added a conference to ECHO called "WIT" (women in telecommunications), which one user describes as "a warm, supportive, women-only, private conference where women's thoughts, experiences, wisdom, joys, and despairs are shared." But Horn also added a conference called "BITCH," which the ECHO-ite calls "WIT in black leather jackets. All-women, riotous and raunchy."

Horn's high-energy, very New York brand of intelligence establishes the kind of place ECHO is and influences how everyone there behaves. When ECHO was first established, Horn and a small group of her close friends were the most active people on the system. "That set the emotional tone, the traditional style of posting, the unwritten rules about what it's OK to say," says Marisa Bowe, an ECHO administrator for many years. "Even though Stacy is too busy

these days to post very much, the tone established in the early days continues," says Bowe, who is now editor of an online magazine called Word.

Beyond the sheer force of a founder's personality, a community establishes a particular character with a variety of choices on how to operate. One example is to set a policy on whether to allow participants to remain anonymous. Initially, I decided that members of MediaMOO should be allowed to choose: they could identify themselves with their real names and e-mail addresses, or remain anonymous. Others questioned whether there was a role for anonymity in a professional community.

As time went on, I realized they were right. People on MediaMOO are supposed to be networking, hoping someone will look up who they really are and where they work. Members who are not willing to share their personal and professional identities are less likely to engage in serious discussion about their work and consequently about media in general. Furthermore, comments from an anonymous entity are less valuable because they are unsituated--"I believe X" is less meaningful to a listener than "I am a librarian with eight years of experience who lives in a small town in Georgia, and I believe X." In theory, anonymous participants could describe their professional experiences and place their comments in that context; in practice it tends not to happen that way. After six months, I proposed that we change the policy to require that all new members be identified. Despite the protests of a few vocal opponents, most people thought that this was a good idea, and the change was made.

Each community needs to have its own policy on anonymity. There's room for diversity here too: some communities can be all-anonymous, some all-identified, and some can leave that decision up to each individual. An aside: right now on the Net no one is either really anonymous or really identified. It is easy to fake an identity; it is also possible to use either technical or legal tools to peer behind someone else's veil of anonymity. This ambiguous state of affairs is not necessarily unfortunate: it's nice to know that a fake identity that provides a modicum of privacy is easy to construct, but that in extreme cases such people can be tracked down.

### **Finding Birds of a Feather**

Another important design decision is admissions policy. Most places on the Net have a strong pluralistic flavor, and the idea that some people might be excluded from a community ruffles a lot of feathers. But exclusivity is a fact of life. MIT wouldn't be MIT if everyone who wanted to come was admitted. Imagine if companies had to give jobs to everyone who applied! Virtual communities, social clubs, universities, and corporations are all groups of people brought together for a purpose. Achieving that purpose often requires that there be some way to determine who can join the community.

A key decision I made for MediaMOO was to allow entry only to people doing some sort of "media research." I try to be loose on the definition of "media"--writing teachers, computer network administrators, and librarians are all working with forms of media--but strict on the definition of "research." At first, this policy made me uncomfortable. I would nervously tell people, "It's mostly a self-selection process. We hardly reject anyone at all!" Over time, I've become more comfortable with this restriction, and have enforced the requirements more stringently. I now believe my initial unease was naive.

Even if an online community decides to admit all comers, it does not have to let all contributors say anything they want. The existence of a moderator to filter postings often makes for more focused and civil discussion. Consider Usenet's two principal newsgroups dealing with feminism--alt.feminism and soc.feminism. In alt.feminism, anyone can post whatever they want. Messages in this group are filled with the angry words of angry people; more insults than ideas are exchanged. (Titles of messages found there on a randomly selected day included "Women & the workplace (it doesn't work)" and "What is a feminazi?") The topic may nominally be feminism, but the discussion itself is not feminist in nature.

The huge volume of postings (more than 200 per day, on average) shows that many people enjoy writing such tirades. But if I wanted to discuss some aspect of feminism, alt.feminism

would be the last place I'd go. Its sister group, soc.feminism, is moderated--volunteers read messages submitted to the group and post only those that pass muster. Moderators adhere to soc.feminism's lengthy charter, which explains the criteria for acceptable postings--forbidding ad hominem attacks, for instance.

Moderation of a newsgroup, like restricting admission to a MUD, grants certain individuals within a community power over others. If only one group could exist, I'd have to choose the uncensored alt.feminism to the moderated soc.feminism. Similarly, if MediaMOO were the only virtual community or MIT the only university, I'd argue that they should be open to all. However, there are thousands of universities and the Net contains hundreds of thousands of virtual communities, with varying criteria for acceptable conduct. That leaves room for diversity: some communities can be moderated, others unmoderated. Some can be open to all, some can restrict admissions.

The way a community is publicized--or not publicized--also influences its character. Selective advertising can help a community achieve a desired ambiance. In starting up MediaMOO, for example, we posted the original announcement to mailing lists for different aspects of media studies--not to the general-purpose groups for discussing MUDs on Usenet. MediaMOO is now rarely if ever deliberately advertised. The group has opted not to be listed in the public, published list of MUDs on the Internet. Members are asked to mention MediaMOO to other groups only if the majority of members of that group would probably be eligible to join MediaMOO.

New members are attracted by word of mouth among media researchers. To bring in an influx of new members, MediaMOO typically "advertises" by organizing an online discussion or symposium on some aspect of media studies. Announcing a discussion group on such topics as the techniques for studying behavior in a virtual community or strategies for using computers to teach writing attracts the right sort of people to the community and sets a tone for the kinds of discussion that take place there. That's much more effective than a more general announcement of MediaMOO and its purpose.

In an ideal world, virtual communities would acquire new members entirely by self-selection: people would enter an electronic neighborhood only if it focused on something they cared about. In most cases, this process works well. For example, one Usenet group that I sometimes read--sci.aquaria--attracts people who are really interested in discussing tropical fishkeeping. But self-selection is not always sufficient. For example, the challenge of making MediaMOO's culture different from prevailing MUD culture made self-selection inadequate. Lots of undergraduates with no particular focus to their interests want to join MediaMOO. To preserve MediaMOO's character as a place for serious scholarly discussions, I usually reject these applications. Besides, almost all of the hundreds of other MUDs out there place no restrictions on who can join. MediaMOO is one of the few that is different.

Emotionally and politically charged subject matter, such as feminism, makes it essential for members of a community to have a shared understanding of the community's purpose. People who are interested in freshwater and saltwater tanks can coexist peacefully in parallel conversations on sci.aquaria. However, on alt.feminism, people who want to explore the implications of feminist theory and those who want to question its basic premises don't get along quite so well. Self-selection alone is not adequate for bringing together a group to discuss a hot topic. People with radically differing views may wander in innocently, or barge in deliberately--disrupting the conversation through ignorance or malice.

Such gate crashing tends to occur more frequently as the community grows in size. For example, some participants in the Usenet group alt.tasteless decided to post a series of grotesque messages to the thriving group rec.pets.cats, including recipes for how to cook cat. A small, low-profile group may be randomly harassed, but that's less likely to happen.

In the offline world, membership in many social organizations is open only to those who are willing and able to pay the dues. While it may rankle an American pluralistic sensibility, the use of wealth as a social filter has the advantages of simplicity and objectivity: no one's

personal judgment plays a role in deciding who is to be admitted. And imposing a small financial hurdle to online participation may do more good than harm. Token fees discourage the random and pointless postings that dilute the value of many newsgroups. One of the first community networks, Community Memory in Berkeley, Calif., found that charging a mere 25 cents to post a message significantly raised the level of discourse, eliminating many trivial or rude messages.

Still, as the fee for participation rises above a token level, this method has obvious moral problems for a society committed to equal opportunity. In instituting any kind of exclusionary policy, the founder of a virtual community should first test the key assumption that alternative, nonexclusionary communities really do exist. If they do not, then less restrictive admissions policies may be warranted.

### **Building on Diversity**

Anonymity policy, admissions requirements, and advertising strategy all contribute to a virtual community's character. Without such methods of distinguishing one online hangout from another, all would tend to sink to the least common denominator of discourse--the equivalent of every restaurant in a town degenerating into a dive. We need better techniques to help members of communities develop shared expectations about the nature of the community, and to communicate those expectations to potential new members. This will make it easier for people to find their own right communities.

Just as the surest way to find a good restaurant is to exchange tips with friends, word of mouth is usually the best way to find out about virtual communities that might suit your tastes and interests. The best published guides for restaurants compile comments and ratings from a large group of patrons, rather than relying on the judgment of any one expert. Approaches like this are being explored on the Net. Yezdi Lashkari, cofounder of Agents Inc., designed a system called "Webhound" that recommends items of interest on the World Wide Web. To use Webhound, you enter into the system a list of web sites you like. It matches you with people of similar interests, and then recommends other sites that they like. Not only do these ratings come from an aggregate of many opinions, but they also are matched to your personal preferences.

Webhound recommends just World Wide Web pages, but the same basic approach could help people find a variety of communities, products, and services that are likely to match their tastes. For example, Webhound grew out of the Helpful Online Music Recommendation Service (HOMR), which recommends musical artists. A subscriber to this service--recently renamed Firefly-- first rates a few dozen musical groups on a scale from "the best" to "pass the earplugs"; Firefly searches its database for people who have similar tastes, and uses their list of favorites to recommend other artists that might appeal to you. The same technique could recommend Usenet newsgroups, mailing lists, or other information sources. Tell it that you like to read the Usenet group "rec.arts.startrek.info," and it might recommend "alt.tv.babylon-5"--people who like one tend to like the other. While no such tool yet exists for Usenet, the concept would be straightforward to implement.

Written statements of purpose and codes of conduct can help communities stay focused and appropriate. MediaMOO's stated purpose, for example, helps set its character as an arena for scholarly discussion. But explicit rules and mission statements can go only so far. Elegant restaurants don't put signs on the door saying "no feet on tables" and fast food restaurants don't post signs saying "feet on tables allowed." Subtle cues within the environment indicate how one is expected to behave. Similarly, we should design regions in cyberspace so that people implicitly sense what is expected and what is appropriate. In this respect, designers of virtual communities can learn a great deal from architects.

Vitruvius, a Roman architect from the first century B.C., established the basic principle of architecture as commodity (appropriate function), firmness (structural stability), and delight. These principles translate into the online world, as William Mitchell, dean of MIT's School of Architecture and Planning, points out in his book *City of Bits: Space, Place, and the Infobahn*:

Architects of the twenty-first century will still shape, arrange and connect spaces (both real and virtual) to satisfy human needs. They will still care about the qualities of visual and

ambient environments. They will still seek commodity, firmness, and delight. But commodity will be as much a matter of software functions and interface design as it is of floor plans and construction materials. Firmness will entail not only the physical integrity of structural systems, but also the logical integrity of computer systems. And delight? Delight will have unimagined new dimensions.

Marcos Novak of the University of Texas at Austin is exploring some of those "unimagined dimensions" with his notion of a "liquid architecture" for cyberspace, free from the constraints of physical space and building materials. But work of this kind on the merging of architecture and software design is regrettably rare; if virtual communities are buildings, then right now we are living in the equivalent of thatched huts. If the structure keeps out the rain--that is, if the software works at all--people are happy.

More important than the use of any of these particular techniques, however, is applying an architect's design sensibility to this new medium. Many of the traditional tools and techniques of architects, such as lighting and texture, will translate into the design of virtual environments. Depending on choice of background color and texture, type styles, and special fade-in effects, for instance, a Web page can feel playful or gloomy, futuristic or old-fashioned, serious or fun, grown-up or child-centered. The language of the welcoming screen, too, conveys a sense of the community's purpose and character. An opening screen thick with the jargon of specialists in, say, genetic engineering, might alert dilettantes that the community is for serious biologists.

As the Net expands, its ranks will fill with novices--some of whom, inevitably, will wander into less desirable parts of cybertown. It is important for such explorers to appreciate the Net's diversity--to realize, for example, that the newsgroup alt.feminism does not constitute the Internet's sole contribution to feminist debate. Alternatives exist.

I'm glad there are places on the Net where I'm not comfortable. The world would be a boring place if it invariably suited any one person's taste. The great promise of the Net is diversity. That's something we need to cultivate and cherish. Unfortunately, there aren't yet enough good alternatives--too much of the Net is like the Sportsman and too little of it is like Maria's. Furthermore, not enough people are aware that communities can have such different characters.

People who accidentally find themselves in the Sportsman, alt.feminism, or alt.flame, and don't find the black leather or fiery insults to their liking, should neither complain about it nor waste their time there--they should search for a more suitable community. If you've stumbled into the wrong town, get back on the bus. But if you've been a long-time resident and find the community changing for the worse--that's different. Don't shy away from taking political action within that community to protect your investment of time: speak up, propose solutions, and build a coalition of others who feel the same way you do.

With the explosion of interest in networking, people are moving from being recipients of information to creators, from passive subscribers to active participants and leaders. Newcomers to the Net who are put off by harassment, pornography, and just plain bad manners should stop whining about the places they find unsuitable and turn their energies in a more constructive direction: help make people aware of the variety of alternatives that exist, and work to build communities that suit their interests and values.