An exploratory study focused on identifying editing values of a new mass medium, computer discussion groups known as Usenet newsgroups. A Usenet newsgroup is defined as a collection of articles grouped loosely by subject and accessible by nearly anyone with a computer and a modem. At present, most newsgroup users are affiliated with universities, the government, or the computer industry. Questionnaires were sent via e-mail to all current Usenet moderators. Of the 70 moderators who indicated they edited postings, 33 returned completed surveys. Results indicated that: (1) 72.7% of the moderators said that editing was either somewhat important or very important to group members; (2) for the most part, the moderators are not professional editors; (3) editing standards are not generally high; (4) the values of usefulness and "flaming" were influential for the moderators; and (5) the moderators used 75% to 100% of the postings to their newsgroup, with most using nearly all the submissions. Findings suggest that the moderators act more as facilitators than gatekeepers in the usual journalistic sense; and that, if computer communication is indeed a new mass medium, mass communication researchers must consider new models for understanding it. (Contains 2 tables of data and 25 references.) (RS)
E-mail editors: Gatekeepers or facilitators?

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Abstract

Each time a new communications medium has emerged, mass communication has changed. This exploratory study attempts to identify editing values of a new mass medium, computer discussion groups known as Usenet newsgroup, using an e-mail survey of moderators. The paper concludes that while computer newsgroup editors share some of the same kinds of news values, the nature of the medium itself has already shaped the editing process.
E-mail editors: Gatekeepers or facilitators?

Each time a new communications medium has emerged, mass communication itself has evolved to fit the medium. Every new step in technology, whether a new medium or changes within a medium, has brought new ways of getting out the message while preserving aspects of the old. Usually, as new media emerge, the patterns of previous media continue, at least for a while. In the early days of television, for instance, reporters simply read news reports, as if they were reading newspaper stories (and in fact, sometimes they were). The practices and values of television journalism didn’t change for a number of years.

This exploratory study attempts to identify editing values and standards of a new mass medium, computer discussion groups known as Usenet newsgroups. Are these editors adopting the values and standards of established journalistic media in making editorial decisions, or is the medium of computers changing the way they make editorial decisions? Moderators, or editors, of Usenet newsgroups were surveyed to find answers to these questions. This paper will conclude that while computer newsgroup editors share some of the same kinds of news values as professional editors, the nature of the medium itself has already shaped the editing process. To understand where that process is headed requires a turn from traditional mass communication theories about gatekeeping to theories of group decision-making.

Background

A Usenet newsgroup is a collection of articles grouped loosely by subject and accessible by nearly anyone with a computer and a modem. A newsgroup is a group in at least two ways: it is a group of related articles, and it is in effect controlled by the writers of those articles, the users. You can be a reader of the articles and never write one; however, in so doing, you will
lose your chance to affect the direction of the group and will lose the ability to interact that the computer medium provides.

At present, it appears that most newsgroup users are affiliated with universities, the government or the computer industry. These people usually have free access to the Usenet through telnet. Others may have to pay long distance charges to hook up, or may have to pay to belong to a bulletin board that provides access to Usenet. Newsgroup subjects range from technical computer applications to sexual bondage practices. There are newsgroups about Volkswagens, juggling, cricket scores, Bob Dylan, hunting, and Pakistan. This simply scratches the surface: there are more than 1,500 newsgroups at present, and more are added constantly. In the second full week in March 1993, 174,802 articles were posted to Usenet groups. It has been estimated that as many as 2.5 million people are reading one or more newsgroups regularly. (von Rospach, 1992) This compares to the daily circulation of major national newspapers, such as the Wall Street Journal, which, according to the Editor and Publisher Yearbook, in 1991 had 1.8 million circulation.

Newsgroups in Usenet are organized by subject into what are called hierarchies. This is indicated by the prefix on the group’s name. Rec.autos.vw, for instance, shows this group is in the rec hierarchy, which contains groups oriented toward hobbies and recreational activities.

The other six major hierarchies are comp, computer groups; misc, for groups not easily classified; sci, groups about science; soc, groups addressing social issues; talk, groups that are "feature long discussion without resolution and without appreciable amounts of generally useful information" (Kehoe, 1992, 35); news, groups that involve information about Usenet and newsgroups. Alternative hierarchies include: alt, called "true anarchy," with topics from sex to the Simpsons (Kehoe, 35); gnu, another computer-related area; biz, business-related groups.

These are the basic hierarchies; there are a number of others.
Usenet is stringent about maintaining a kind of editorial/advertising separation. From Kehoe (1992): "Many Usenet sites are academic or government organizations; in fact, Usenet originated in academia. Therefore, there is a Usenet custom of keeping commercial traffic to a minimum. If such commercial traffic is generally considered worth carrying, then it may be grudgingly tolerated. Even so, it is usually separated somehow from non-commercial traffic."

Usenet is a fairly anarchic place and proud of it. As Kehoe writes, "Usenet has no central authority. In fact, it has no central anything." He points out that any "heavy-handed manipulation [of Usenet] typically results in a backlash of resentment." Usenet protocol, or netiquette, as it's called, is strict, and retribution swift. Those who violate it are instantly flamed (ridiculed and insulted in the newsgroup) and can be banned: "If I choose not to use my computer to aid your speech, that is my right. Freedom of the press belongs to those who own one." (Kehoe, 30) Despite this warning, Usenet is an extremely diverse and open place. Many viewpoints are tolerated and indeed encouraged, and those who object to diversity are promptly rebuked. The computer makes it easy to reply immediately to an article that has made you angry.

Usenet netiquette involves certain loose guidelines: be brief, be careful what you say about others, never forget that the person on the other side is human, only post a message once. (News-newusers-intro, 1993) There are other more nebulous rules involving copyright infringement and libel. These kinds of problems haven't been decided in the courts yet, although the Usenet guide for newusers notes that "Once something is posted onto the network, it is probably in the public domain" (News-newusers-intro).

In addition, Usenet documents for new users urge them to write well: "If you have terrible spelling, keep a dictionary nearby. If you have trouble with grammar and punctuation,
try to get a book on English grammar and composition (found in many bookstores and at garage sales). By all means pay attention to what you say—it makes you who you are on the Net" (Kehoe, 42).

People create new groups by posting an announcement about a proposed group in a special newsgroup. The announcement usually consists of the new group’s charter, which is a short statement of what the group will be about. After the announcement has been on the net for a while, a vote on the new group is called. Anyone in the Usenet community can vote, even someone who has just logged on to the net for the first time. If the voters approve, the new group is created, and people can start posting articles in the group.

The anarchy of Usenet apparently led to the creation of moderated groups, in an effort to control the number of postings. Usenet began in 1979, and Kehoe notes that a program for moderating groups became available by 1984. At the time of the present study, there were approximately 151 moderated groups. Of those 151, 70 were identified for this study as groups that apparently have content edited in some way. Other groups were primarily being monitored. Usenet is a constantly shifting society. Groups are created and die frequently, far too frequently to create a definitive list. As the medium evolves and more people log on, groups may be more likely to be moderated or edited in some way as the volume increases. Based on the history of other media, Usenet moderators may someday have professional standards to follow.

For other, more established media, those standards include news values. Sociologist Robert Ezra Park defined news as "a published form of communication which alerts people to changes and the need for change in their environment, and which promotes public discussion and public opinion" (Frazier and Gaziano, 1979, p. 3). With this definition, information on the newsgroups certainly qualifies as news. Those who decide what goes in the newspaper or the
newsgroups are gatekeepers. In an early case study, David Manning White (1950) looked at how a wire editor made decisions on what ran in his news pages. White found this editor based his decisions on interest, proximity, timeliness, importance, and space available. These values are mentioned again and again in discussions of what is news. One of the more popular newswriting texts lists news values as impact, timeliness, prominence, proximity, conflict, the bizarre and currency, although the author notes that these commonly accepted values don’t reveal that one of the most enduring stories is simply how we live now, and they also don’t tell how the realities of newspaper work also shape the answer to the question, what is news. (Mencher, 1991)

Clearly, technology has influenced the definition of news, as discussed earlier. As newspapers were converting to VDTs in the '70s, a number of studies were done on how electronic copy editing differed from hard copy editing. Various studies replicated findings that people seem to make fewer spelling, grammatical and typographical errors using computer editing. (Randall, 1979; Shipley and Gentry, 1981; Garrison, 1982) In general, however, the subjects of these studies were professional editors.

Anthony Smith, in an article on technology and control in journalism, notes that each innovation in mass media technology results in a shift in one or more of five dimensions. (Smith, 1977) These are: the audience, the news source, the techniques of journalism, journalists’ stance toward their readers, and editorial control over the finished product. As Smith says, "These five dimensions are in part determinants of the nature of journalism as the ‘software’ to their ‘hardware’; but they are themselves, of course, the results of many other strands of social, technological and political history" (p. 177).

He goes on to conclude that:

a medium of communication is a set of technical possibilities, the physical manifestation
of which involves the convergence of a series of trends and impulses in society. The various parts of a medium are sustained through mutual and societal pressures. The journalists, like the other parts of the machine, are constantly re-professionalized, as it were, to new tasks, as each formulation of a medium succeeds its predecessor. We do not live at the end of that great evolution. Indeed we can see in the 1970s another “new” journalist coming into being, a professional trained to supply material to the new electronic apparatus which is already taking over the production of many newspapers. (pp. 193-194)

Today, Usenet and nationwide computer bulletin boards are sending out information in a new medium, a medium that is, as Everett Rogers calls it, "highly interactive, asynchronous, and demassified" (Rogers, p. 43). These three attributes have moved much of the control over communication from the source, where it is generally thought to reside in mass communication, to the receiver. Interactivity means that computer communication is more similar to having a conversation than reading a newspaper. The asynchronicity of computer communication allows the individual to send or receive messages at any convenient time. And computer communication is demassified in that individuals in a large audience can receive communications tailored especially for them. (Rogers, pp. 5-6)

Electronic mail communication is higher than print on a scale of media richness, meaning it provides rapid, although not necessarily immediate, feedback. Face-to-face communication is highest, of course, on the scale of richness. (Trevino, et al., 1990, pp. 75-77)

Lee Sproull and Sara Kiesler outline some of the effects of computers on communication in an article in Scientific American. (1991) After conducting a series of experiments, they found that communication via computer encourages equal participation, more ideas and "flaming." (p. 119)

Grammar and spelling flaming has become part of netiquette. It’s not considered polite to correct people’s grammar and spelling, and in fact seems to activate the anarchist instincts of Usenet users:

Every few months a plague descends on Usenet called the spelling flame. It starts out
when someone posts an article correcting the spelling or grammar in some article. The immediate result seems to be for everyone on the net to turn into a 6th grade English teacher and pick apart each other's postings for a few weeks. This is not productive and tends to cause people who used to be friends to get angry with each other. It is important to remember that we all make mistakes, and that there are many users on the net who use English as a second language. There are also a number of people who suffer from dyslexia and who have difficulty noticing their spelling mistakes. If you feel that you must make a comment on the quality of a posting, please do so by mail, not on the network. (Welcome, 1993)

Many newsgroups are unmoderated. This term is apparently open to interpretation, but in most cases it means messages are placed in the group without being changed at all.

Moderated groups often have quite specific aims for editorial content. As mentioned above, they have group charters, and many have detailed guidelines for submission. Soc.feminism, for instance, has an editorial policy:

If the moderator who receives your article thinks that it is generally OK if it is somewhat edited, you will get your article back with comments. At this point, you can change it and send it back directly to that moderator. If you feel that changes are unreasonable, you can appeal....Minor modifications may be made to articles that have lines that are too long, have their attributions mixed up, or quote excessive material. (Soc.feminism, /info, 1993)

In general, groups that have strict editorial guidelines make those available to readers through anonymous File Transfer Protocol (FTP). This is a method where documents are archived at certain computer sites, usually universities. Readers can, using an FTP program, telnet to the site and move a selected document to their computers, where they can read it. Usually, those without FTP capability can also get such documents by sending an e-mail request. The editorial guidelines vary greatly, from extremely specific to very vague. One moderator of a computer discussion group asks for abstracts, reviews, bibliographies, half-baked ideas, conference reports, anecdotes, jokes and poems. Moderators, then, would appear to serve sometimes as editors, suggesting story ideas at times, but mostly rejecting stories that do not fit their criteria for the group.
But while there are clear differences between computer and print communication, there are also similarities. Ogan (in press) studied the Turkish Electronic Mail List during the Gulf War and found that articles posted there could be categorized into certain story categories, such as news, editorials, features, sports, ads; in effect, the members of this unmoderated mailing list were continually putting out a special interest publication with somewhat traditional forms. This study will explore whether newsgroup moderators replicate traditional editing practices as well. There has been little research on Usenet groups, and this study is a preliminary project to identify areas of further interest to explore in more rigorous ways.

Methodology

An e-mail survey was used to get answers to the research question: How do editing values and standards used by computer newsgroup editors differ from those used by traditional mass media editors? Demographic information was also gathered. I pretested the survey on several friends, one of whom has worked professionally as a magazine editor. In addition, I sent it out to a few selected mailing list moderators for a pre-test. Mailing lists are also computer discussion groups that are somewhat less structured than newsgroups. I designed the survey to measure editing ability, recognition of the audience's needs, and awareness of values used in editing. I used a mixture of open- and close-ended questions. The e-mail survey is becoming a popular form of research. Kiesler and Sproull (1986) compared results from an e-mail survey and a regular mail survey, and found that on e-mail, respondents tended to have fewer item-completion mistakes and that respondents were less concerned with social norms and impressions they made on others.

A preliminary survey to identify moderated groups was unsuccessful. Moderators and e-mail addresses had changed so much since lists were created that many messages were sent back with the note "addressee unknown." The survey results bear this out, with many
respondents moderating groups for a year or less. I finally discovered the best way to contact moderators is to send a message to a site that would relay it to all current Usenet moderators. This method provided the best response rate, but a number of these respondents said they did no editing. I sent the survey to those who did edit, or did not respond to my first message. Out of approximately 151 who receive the mailings for Usenet moderators, it appears that some 70 actually edit postings. Of these, I received completed surveys from 33, close to a 50 percent response rate. Since it's not clear how many are strictly moderated, I can't at this time be more precise than that.

The quantitative information in the survey was tabulated and placed into an SPSS file. This allowed me to get descriptive statistics about the respondents. The answers to open-ended questions provided background and depth for the quantitative answers.

Results

Table 1 (see Appendix) summarizes demographic and other information about these 33 moderators. Of the 33 respondents, 31 were male. The average moderator in this group is 33 years old, has more than 13 years of computer experience, has been moderating the group less than a year and works in a computer science-related field. The moderators rate themselves as very fluent (75.8 percent) in computer literacy, and 78.8 percent rate themselves as either good or excellent in grammar and spelling skills. Only 12 of the respondents, or 36.4 percent, report they have had some kind of journalism experience or training, either having worked on a school newspaper, taken a journalism course or put out a newsletter. They spend anywhere from one to 20 hours a week (mean=4.78 hours) moderating the group, and they receive an average of between 10 and 20 contributions a week, with six respondents receiving more than 100 a week.

Importance of editing to readers

Six (18.2 percent) of the moderators said good editing is not important to group
members, but 72.7 percent said it was either somewhat important or very important (see Appendix, Table 1). Their responses to the open-ended question reflect this attitude. "Clarity of communication is always desirable," wrote one moderator. "Minor transgressions in grammar, spelling and style pale in comparison to clarity of presentation and significance of one's ideas." Another noted, "My group's purpose is to serve as an information resource to the readers. Grammar, spelling, and style are, as far as I'm concerned, almost completely irrelevant. It's the pure information content of the articles that matters here."

However, some moderators are bothered by a writer's carelessness. One moderator who works as a technical writer said, "There are errors in just about everything I get. I have given up trying to care." And another said that people do notice bad spelling, based on the number of bad spelling flames he's seen. However, he added that "not enough readers know good grammar (based on the Usenet posts I read) to notice errors."

The moderator of the Debbie Gibson newsgroup, a group about a young entertainer, said, "Some people have atrocious grammar and spelling. We try to preserve the person's style, though.... Although the readers do not realize how much proofreading is done to our issues, I am sure they appreciate clean, readable issues." (It is interesting that this moderator clearly thinks of her newsgroup as having "issues." She also said that they put out at least one "issue" a month, depending on what Debbie Gibson is doing. It's difficult to break out of old frames.)

The readers of rec.arts.erotica have told their moderator not to edit too closely: "The feedback I've gotten indicates that while I shouldn't edit or reject submissions on the basis of literary quality (plot, character development, imagery, whatever), stories which do not display even a cursory knowledge of English spelling or grammar should not be approved. I reject such submissions rather than editing them, but I encourage the authors to edit themselves and resubmit them."
In general, the moderators see themselves, as one put it, "as a conduit, not a filter." They are far more interested in the ideas expressed in submissions than the way they are expressed. "Ideas and concepts are more important than grammar (sic). If an article does not generate enthusiasm, or the desire to experiment, then it has not succeeded (sic). If you write for the expert the layman will complain if things get too technical. If you write for the layman the expert will complain that the treatment is too superficial (sic). Write for your own pleasure, and at least you are satisfying yourself."

Grammar and style, said one respondent, are "not as important as the content. People can forgive simple typos as long as the substance is there. People get real picky if the substance is also lacking."

Said another, "I feel it is important, however given the choice between information that has poor grammar, spelling, and style but is still understandable and no information I'll take the former. Generally I've found that good information is also good in form." And another moderator noted that since many newsgroups are discussion groups, "people type quickly and don't spend a lot of time trying to get the format right. This is similar to a casual conversation. Nobody speaks with proper grammar in a casual situation."

Attitudes toward editing

For the most part, these are not professional editors, although more than a third of them (36.4 percent, see Appendix, Table 1) have had journalism experience of some kind, whether on their school paper or putting out a company newsletter. They do not get paid to moderate groups, and they still see it as a hobby. Also, editing standards for articles on the Usenet are not generally high. There seems to be no pressure to set norms. As Ogan (in press) points out, computer discussion groups lack the credibility of established media. In addition, norm-setting is difficult, she notes: "[W]hen members drop in and out of groups, the norms need to be re-set
for new users. This type of bulletin board is dynamic, where norms cannot be set down once and never changed, since membership changes regularly and new members may not wish to accept the old rules. This means that the wheel needs constant reinvention unless bulletin board norms become universally established." (24-25)

The written responses of the moderators of this study bear out these observations. One moderator said that he reads articles only to determine their suitability, not to edit them: "I simply don’t have the time to act as editor, especially considering the relative illiteracy of the average computer user."

Time seems to be a major constraint. One moderator works on writing "if it’s horrid. Usually not since I don’t have the time to do much about with that. I have to take care of my regular job." Another moderator objected to the survey’s attempts to fit moderators into the same mold as editors: "I am not (the electronic equivalent of) an editor. I moderate a newsgroup. If you don’t make that distinction I think your research is in trouble."

**Editing values**

The moderators were asked to rank, on a scale from 1 to 5, how influential certain values were in their evaluation of submissions to the group. These values included standard news values, as well as other values that could be considered specific to newsgroups (see Appendix, Table 2). With 1 meaning not influential and 5 meaning very influential, usefulness (the subject of your contribution is useful to your readers) was ranked either at 4 or 5 by 75.7 percent of the moderators. Flaming (the amount of flaming in a submission) was rated at 4 or 5 by 60.6 percent, and both their own training in the field and impact of the article on readers were rated 4 or 5 by more than 50 percent of the moderators in the study. Clarity and currency were the next highest-rated values. Values rated not as influential included the bizarre, prominence, conflict, timeliness, space, other moderators and other groups.
Clarity seems to become important when poor writing interferes with it. One moderator changes articles "only when required for readability (usually foreigners). CS [computer science] has its own jargon (indeed it is jargon intensive). I don’t tinker with it on the group."

Newsgroup writers for whom English is a second language were mentioned several times. Some moderators will work with such a writer, and at least one said he makes recommendations on how to learn English: "I offer special grammar/style help for non-native English speakers who write reviews. All they have to do is ask, and I’ll edit their review and return it to them for double-checking."

**The role of the group readers**

The moderators said they use 75 to 100 percent of the postings to their newsgroup, with most using nearly all the submissions. The survey results show that even in moderated groups, Usenet readers have great control over what goes into the groups. Part of this seems to be linked to the tradition of Usenet as a democracy, without strict rules, without chains of hierarchical decision-making, such as that of established media. Decisions are almost made by consensus, with writers starting one strand of conversation, and other writers reacting or not reacting by posting more articles.

The readers regulate the group in other ways, too. Several moderators said they often ask the group members about articles. One moderator said he had a conflict over whether to post a very large article that was a guide to episodes of a popular TV series. He was afraid that posting it would overload small Usenet sites. When he surveyed members, 50 percent said they wanted the article, while 20 percent said their hardware wouldn’t support it. Another moderator said, "I occasionally have surveys to see if my readers like what they see. If anyone makes a suggestion, I will usually take it." The ease of doing surveys on the Usenet makes reader feedback available instantly. Usenet readers are not shy about voicing opinions, too. The
anonymity of the medium does appear to remove some of the constraints of face-to-face contact. "The group is self-censuring," one moderator said.

Conclusions

Many people who post on Usenet have sigs, or signatures, a quotation or address that automatically gets placed at the bottom of their article when it's posted. One moderator's sig reads: "Usenet is like a herd of performing elephants with diarrhea. Massive, difficult to redirect, awe-inspiring, entertaining, and a source of mind-boggling amounts of excrement when you least expect it." This seems to be an accurate metaphor for the state of Usenet now.

However, Usenet's diversity does not mean there are not patterns in this evolving medium. While the groups differ widely in subject matter and how they are moderated, the moderation of the groups seems to have several common strands, even if, at this point, Usenet groups do not seem to be following many of the patterns of established print publications. Editing for mistakes and clarity is not a big concern for these moderators. They are more concerned about a posting's usefulness to their readers and the amount of flaming in the article. Clarity comes in a distant third in editing values, and the moderators don't worry much about spelling and grammatical mistakes.

But there are signs within the survey that these attitudes are changing. As many moderators mentioned, clarity of writing and thought becomes important if it affects the content of the posting. Good writing may become even more important as time goes on and more people begin using Usenet. At present, the education level of Usenet readers is extremely high compared to the general population. While casual reading of the groups will show large numbers of spelling and grammar errors, they are usually not so great to hinder understanding. Articles that are badly written can be ignored or killed. As more people post, however, the
number of errors is likely to increase along with the number of articles. The need to control both
the number of articles and the clarity of the articles may force more groups to be moderated.

Legal pressures may also force more editing. At present, libel, obscenity and copyright
laws are apparently not being widely used to control computer messages in newsgroups, but
that situation may be changing. In a 1991 libel case against CompuServe, the only such case that
has gone to court, a district court judge found for CompuServe, saying the computer bulletin
board service was like a bookseller, who can't be found liable for the content of books.
(Harmon, 1993) A man who gave information on the Prodigy network about a company's
fortunes in relation to stock prices is now being sued by that company for libel and securities
fraud. The company says his comments on the bulletin board caused their stock to drop almost
50 percent last summer. (Harmon, 1993) Law has generally been slow to catch up with new
technologies, but when it does, some kind of gatekeepers may be needed, or groups will fold.
Two Canadian universities last summer prohibited access to the alt.sex groups after women’s
groups complained about a graphic story about the rape of a 12-year-old girl. (Moon, 1992) This
has not hurt the groups involved, which are by far the most popular newsgroups.

Several of the moderators who responded to this survey mentioned confusion over
legal issues. The moderator of the Star Trek group, for instance, said, "I often have to weigh the
value of an article against the risk of legal complications (when I’m unable to get reprint
permission, that is). Regardless of who authored an article, by accepting it, I’m assuming joint
responsibility. And that opens me up to a mess of legal liability."

The moderator of rec.arts.erotica, not surprisingly, had the most legal concerns:

The previous moderator instituted a policy of "informed consent" on posts to
rec.arts.erotica: any piece describing sexuality that was not of an "informed consent"
nature -- any rape, bestiality, or child molestation, for example -- was verboten.
Although I personally agree with this rule and am disgusted by stories about rape and
child abuse, I felt honor-bound to remove it. I feel very strongly that if I were to reject
some posts based on a perceived "offensiveness," then I would implicitly lend a stamp of approval to any stories that got posted to the newsgroup, a position I wouldn't feel comfortable placing myself in. The jury is still out on copyrighted material. "Fan fiction" occasionally gets submitted — original stories based on characters in Tolkien or Star Trek or the like — and, since the characters and events often fall under copyright law, I'm not sure whether I should approve or reject the stories.

The survey results also show that newsgroups are truly groups. While moderators do have some control over the content, readers are extremely active in gatekeeping as well, excoriating others for opinions, flaming and errors of every kind. In this way, newsgroups seem to be groups making decisions, in an unstructured way. Group support systems research has looked at how new technologies like computers allow people to work together and make decisions. A group support system is a technological tool, usually a computer, that allows groups to negotiate and make decisions. Much research has been done in this area, which is also known as groupware, electronic meeting systems, computer-mediated communication systems and group decision support systems. From the literature of group support systems, McGrath and Hollingshead (1993) point out that computer groups function differently from face-to-face groups. Production of written text is, of course, slower than talking, while reception of written text (reading) is faster than of spoken text (listening), depending on the material. In computer groups, messages may be of a higher quality than spoken messages, because composition and editing of the messages is separate from their transmission. Finally, more than one member of a computer group can compose and send messages at the same time, a feat impossible in a face-to-face group. They conclude that "computer conferences reduce 'production blocking'... and perhaps reduce inhibition for low-status members." (84)

As Jessup and Valacich (1993) write, "History suggests that, for us to understand any new technology, we have to move beyond traditional notions of what we did without the technology. We must think in novel ways about how we will use the new technology and about
the effects that the technology might have on us." (3) Since it has been based in business schools,
group support systems research has often focused on same-time/same-place decision-making,
using computer programs that allow goal-oriented groups to work together during a meeting.
An e-mail network like a Usenet newsgroup is very much like these groups, except for the time
and space distanciation. In an overview of GSS empirical research, Dennis and Galupe noted
several benefits of group decision-making through computers. One, it seems that larger groups
perform better and are more satisfied with GSS than smaller groups. Two, GSS use seems to
help more with complex generation tasks, such as drafting a plan, than simple choice tasks.
Three, the anonymity of GSS seems to improve performance in hierarchical groups with clear
power and status structures. And GSS research consistently shows that domination of groups
by leaders can difficult. (Mennecke, 1992)

Clearly, Usenet newsgroups fit into this framework. The moderators of these groups
seem to act more as facilitators than gatekeepers, in the usual journalistic sense. The moderators
keep the group members on-task, in a sense, but try not to hinder them in any way, not even by
correcting grammar. Smith’s (1977) proposition that the techniques of journalism change as
technology changes may be observed in action here. The Usenet newsgroup moderators may be
creating a new way of being editors, a way that makes the process more of a team effort than it
has been in traditional journalism. If computer communication is indeed a new mass medium, a
new form of journalism, we as mass communication researchers must consider new models for
understanding it.
References


communication during the Gulf War. *Journal of Broadcasting and Electronic Media.*


Appendix

Table 1
Information about Usenet newsgroup moderators

<table>
<thead>
<tr>
<th>Sex</th>
<th>Percent (N)</th>
<th>Hours spent per week on moderating</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
<tr>
<td>male</td>
<td>93.9 (31)</td>
<td></td>
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Length of time moderating

<table>
<thead>
<tr>
<th>Time</th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 6 mo.</td>
<td>24.2 (8)</td>
</tr>
<tr>
<td>6 mo. to 1 yr.</td>
<td>27.3 (9)</td>
</tr>
<tr>
<td>1 yr. 1 day to 2 yrs.</td>
<td>18.2 (6)</td>
</tr>
<tr>
<td>2 yrs 1 day to 5 yrs.</td>
<td>12.1 (4)</td>
</tr>
<tr>
<td>more than 5 yrs.</td>
<td>18.2 (6)</td>
</tr>
</tbody>
</table>

Field

<table>
<thead>
<tr>
<th>Field</th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>computer science</td>
<td>78.8 (26)</td>
</tr>
<tr>
<td>non-computer science</td>
<td>21.2 (7)</td>
</tr>
</tbody>
</table>

Computer literacy

<table>
<thead>
<tr>
<th>Literacy</th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>fair/average</td>
<td>9.1 (3)</td>
</tr>
<tr>
<td>above average</td>
<td>15.2 (5)</td>
</tr>
<tr>
<td>very fluent</td>
<td>75.8 (25)</td>
</tr>
</tbody>
</table>

Grammar ability

<table>
<thead>
<tr>
<th>Ability</th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>poor</td>
<td>12.1 (4)</td>
</tr>
<tr>
<td>fair</td>
<td>3.0 (1)</td>
</tr>
<tr>
<td>average</td>
<td>6.1 (2)</td>
</tr>
<tr>
<td>good</td>
<td>36.4 (12)</td>
</tr>
<tr>
<td>excellent</td>
<td>42.4 (14)</td>
</tr>
</tbody>
</table>

Journalism training

<table>
<thead>
<tr>
<th>Training</th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>36.4 (12)</td>
</tr>
<tr>
<td>no</td>
<td>60.6 (20)</td>
</tr>
</tbody>
</table>

Contributions received per week

<table>
<thead>
<tr>
<th>Contributions</th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>fewer than 10</td>
<td>42.4 (14)</td>
</tr>
<tr>
<td>10-20</td>
<td>15.2 (5)</td>
</tr>
<tr>
<td>21-70</td>
<td>9.1 (3)</td>
</tr>
<tr>
<td>71-100</td>
<td>6.1 (2)</td>
</tr>
<tr>
<td>more than 100</td>
<td>18.2 (6)</td>
</tr>
</tbody>
</table>

Mean=4.78
Did someone teach you to moderate?

<table>
<thead>
<tr>
<th></th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>18.2 (6)</td>
</tr>
<tr>
<td>no</td>
<td>72.7 (24)</td>
</tr>
</tbody>
</table>

Importance of editing to readers

<table>
<thead>
<tr>
<th>Importance</th>
<th>Percent (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>very important</td>
<td>12.1 (4)</td>
</tr>
<tr>
<td>somewhat important</td>
<td>60.6 (20)</td>
</tr>
<tr>
<td>not important</td>
<td>18.2 (6)</td>
</tr>
<tr>
<td>don't know</td>
<td>6.1 (2)</td>
</tr>
</tbody>
</table>

Age

ranged from 19 to 64
mean=32.5

Years of education beyond high school

ranged from 1 to 14
mean=6.35

Years of computer experience

ranged from 3.5 to 30
mean=13.22
Table 2
Rankings of values used in editing

<table>
<thead>
<tr>
<th>Percent (Number)</th>
<th>Impact</th>
<th>Timeliness</th>
<th>Usefulness</th>
<th>Prominence</th>
<th>Conflict</th>
<th>Bizarre</th>
<th>Currency</th>
<th>Clarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>not influential  1</td>
<td>21.2 (7)</td>
<td>30.3 (10)</td>
<td>9.1 (3)</td>
<td>48.5 (16)</td>
<td>54.5 (18)</td>
<td>57.6 (19)</td>
<td>21.2 (7)</td>
<td>9.1 (3)</td>
</tr>
<tr>
<td>2</td>
<td>9.1 (3)</td>
<td>15.2 (5)</td>
<td>3.0 (1)</td>
<td>6.1 (2)</td>
<td>9.1 (3)</td>
<td>15.2 (5)</td>
<td>9.1 (3)</td>
<td>15.2 (5)</td>
</tr>
<tr>
<td>3</td>
<td>9.1 (3)</td>
<td>9.1 (3)</td>
<td>3.0 (1)</td>
<td>21.2 (7)</td>
<td>15.2 (5)</td>
<td>12.1 (4)</td>
<td>24.2 (8)</td>
<td>30.3 (10)</td>
</tr>
<tr>
<td>4</td>
<td>12.1 (4)</td>
<td>6.1 (2)</td>
<td>24.2 (8)</td>
<td>12.1 (4)</td>
<td>6.1 (2)</td>
<td>9.1 (3)</td>
<td>12.1 (4)</td>
<td>27.3 (9)</td>
</tr>
<tr>
<td>very influential 5</td>
<td>42.4 (14)</td>
<td>30.3 (10)</td>
<td>51.5 (17)</td>
<td>6.1 (2)</td>
<td>9.1 (3)</td>
<td>3.0 (1)</td>
<td>27.3 (9)</td>
<td>15.2 (5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent (Number)</th>
<th>Peers at Job</th>
<th>Friends on Group</th>
<th>Other moderators</th>
<th>Prof. Training</th>
<th>Other Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>not influential  1</td>
<td>78.8 (26)</td>
<td>39.4 (13)</td>
<td>63.6 (21)</td>
<td>21.2 (7)</td>
<td>60.6 (20)</td>
</tr>
<tr>
<td>2</td>
<td>6.1 (2)</td>
<td>9.1 (3)</td>
<td>18.2 (6)</td>
<td>27.3 (9)</td>
<td>6.1 (2)</td>
</tr>
<tr>
<td>3</td>
<td>3.0 (1)</td>
<td>27.3 (9)</td>
<td>9.1 (3)</td>
<td>27.3 (9)</td>
<td>24.2 (8)</td>
</tr>
<tr>
<td>4</td>
<td>6.1 (2)</td>
<td>12.1 (4)</td>
<td>3.0 (1)</td>
<td>21.2 (7)</td>
<td>6.1 (2)</td>
</tr>
<tr>
<td>very influential 5</td>
<td>6.1 (2)</td>
<td>9.1 (3)</td>
<td>3.0 (1)</td>
<td>3.0 (1)</td>
<td>0.0 (0)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent (Number)</th>
<th>Journals in the field</th>
<th>Space limitations</th>
<th>Rational arguments</th>
<th>Amount of flaming</th>
<th>Perception of audience wants</th>
</tr>
</thead>
<tbody>
<tr>
<td>not influential  1</td>
<td>63.6 (21)</td>
<td>48.5 (16)</td>
<td>30.3 (1)</td>
<td>24.2 (8)</td>
<td>6.1 (2)</td>
</tr>
<tr>
<td>2</td>
<td>6.1 (2)</td>
<td>24.2 (8)</td>
<td>15.2 (5)</td>
<td>3.0 (1)</td>
<td>3.0 (1)</td>
</tr>
<tr>
<td>3</td>
<td>9.1 (3)</td>
<td>15.2 (5)</td>
<td>12.2 (4)</td>
<td>6.1 (2)</td>
<td>42.4 (14)</td>
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<td>3.0 (1)</td>
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<td>21.2 (7)</td>
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<tr>
<td>very influential 5</td>
<td>3.0 (1)</td>
<td>6.1 (2)</td>
<td>18.2 (6)</td>
<td>48.5 (16)</td>
<td>24.2 (8)</td>
</tr>
</tbody>
</table>

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