The great art of living easy and happy in society is to study proper behaviour, and even with our most intimate friends to observe politeness; otherwise we will insensibly treat each other with a degree of rudeness, and each will find himself despised in some measure by the other.

Boswell, London Journal (1762)

Foreward

This appendix is an edited version of "Message System Mores," chapter 6 of the Xerox Laurel Manual, by Douglas K. Brotz, and the essay "Message System Mores" that Brotz published in ACM Transactions in Office Information Systems, Vol 1, No. 2. The material that appeared only in the ACM journal is copyright 1983 by the Association for Computing Machinery, Inc.

Douglas Brotz was a member of the team at the Palo Alto Research Center (PARC) that designed Laurel, which is an electronic message system similar to Lafite that was written for the Xerox Alto. Through his involvement with Laurel, Brotz discovered patterns of electronic message system behavior that may apply to Lafite users. He also developed some rules for appropriate message system behavior, i.e., message system etiquette. Because many Laurel and Lafite users have found this essay helpful, we have edited it for inclusion here, making the references appropriate for Lafite and deleting information that appears elsewhere in the Lafite manual.

Introduction

This is an essay on manners, in particular, message system manners. Electronic message systems provide a new mode of communication that, while offering convenience, speed, and reliable delivery, also opens channels that may be abused. At the Xerox Palo Alto Research Center, we have designed and implemented an electronic message system that has quickly spread throughout the Xerox Corporation. Through its use, we have discovered many patterns of message system user behavior that appear to apply to electronic message systems in general rather than to the particular system that we built. The focus of this essay is not on the features of our system, but on observations of user behavior in the electronic mail environment in an effort to spread understanding of this new medium and to instruct users in proper behavior.

The contents of this essay may be divided into roughly two kinds, objective observations of message system social phenomena and definitely biased suggestions of standards. The opinions

expressed herein are solely those of the author. These opinions are not based on scientific studies or samples, but rather on certain intuitive feelings that have evolved through a close association with our system since its inception.

Communication Patterns

Part of the evolution of a society is the structure within which its members communicate. Face-to-face communication, both spoken and through gestures, has been with us for a very long time. Written communication and telephone communication have been employed for a substantially lesser amount of time. Nevertheless, these modes of communication have been around long enough to have developed certain standards of conduct and a framework in which reasonable communication can take place.

The electronic message medium has existed for a much shorter period of time, perhaps 20 or so years. (I am purposely ignoring telegraphic communication, which has very different characteristics due to its long delays and high cost.) Electronic message systems on personal computers have been available for even less time, probably less than 10 years. In this time, standards of electronic communication have not yet had time to mature, so we are still groping toward a workable electronic-messaging society.

In any of the mature communication media, each society places limits on what is considered acceptable behavior. Vulgar language or gestures are generally frowned upon in face-to-face communication, except in smaller sub-societies in which this mode of behavior is necessary for group membership. Shouting at close range is similarly considered to be in bad taste. Methods of dealing with such behavior in face-to-face communication run from mild rejection of the speaker to complete avoidance of that speaker in the future. As the number of human societies is large, and each has had much experience with this means of communication, the means employed for dealing with such situations are quite varied. Within each group, however, the methods used can be quite effective in stifling unwanted behaviors.

I will list several kinds of situations that arise in the electronic message medium and means for dealing with them. Where possible, I will draw parallels to other more traditional modes of communication to illustrate acceptable manners. In addition, I will try to point out the ways in which communicating via electronic mail is different from the traditional communication media, and how this modifies the problems to be dealt with.

The Wrong Number

We all have dialed wrong numbers and received calls from people who have dialed wrong numbers. The protocol for handling such situations is simple, and arises naturally as a result of the way in which standard phone calls are initiated. A typical wrong number dialog may be as follows:

Callee: Hello.

Caller: Hello. May I speak to John?

Callee: There is no one at this number by that name. I believe

you have the wrong number.

Caller: Oh. Isn't this 555-1234?

Callee: No, it isn't. (And sometimes . . .) This is 555-4321!

Caller: Thank you. I'm sorry to have bothered you.

In postal communication, receiving misaddressed mail or mail for a former resident who has moved is akin to the telephone's wrong number. The post office's suggested remedy is for the recipient to line out the address and remail the letter. The post office will then attempt to forward the letter to the correct address, deliver it to the proper address, or return the letter to the sender.

Note that in both of these situations, it was not necessary to begin the actual conversation or open the letter. Enough information is exchanged at the outset to determine if the parties in the communication are the correct ones. This is usually not true when comunicating via electronic mail.

In electronic message systems, it is seldom the case that a message sent to a particular name is actually delivered to a recipient with a different name. A different situation is (unfortunately) common when a recipient has a popular name. The problem is that several people may have the same last name, and some electronic message systems do not have convenient facilities for mapping a person's actual name into that person's message system name. Thus, a person named Doe may receive mail for ADoe, BDoe, etc. Here, the original error is committed by the sender, who did not consider that ADoe's message system name was actually ADoe, but just assumed that it was Doe.

The parallel to this situation in the telephone medium is actually a bit more elaborate than the dialog given above. It is more like:

Callee: Hello.

Caller: Hello. Is Johnny there? Hold on, I'll get him.

John: Hello?

Caller: Hey Johnny, let's boogie on down to the hoedown.

John: Who is this?

Caller: Come on buddih, this is good old Bodine!

John: I don't know any Bodine. Caller: Oh. Ain't this 555-1234?

and so on. Notice that in this case a partial name match has occurred, and it is only later in the conversation that one of the parties discovers that something is awry. In the electronic mail case, it is nearly always the case that the message must be at least partially read to determine that it has reached an incorrect recipient.

This situation can be (and has been) handled in several inappropriate ways. First (and worst), the incorrect recipient can just ignore the message. No one gains through such inaction. Second, the incorrect recipient may send a response to the sender of the form "Stop sending me this trash!" This is a bit more helpful, but not quite the best that can be done. Third, the incorrect recipient may send the correct recipient a message of the form "Tell your senders what your name is!" This is not even as good as the previous response, as a message system user cannot know all possible senders.

Proper consideration by all involved can alleviate the "wrong number" syndrome considerably. Senders of messages should know their recipients. When sending a message, if you are not sure of a person's message system name, look it up. At Xerox PARC, the phone list has everyone's message system name correctly listed. Perhaps other organizations should do the same, and eventually a message-system-wide "white pages" may be published. Such lists help, but not if the senders don't use them.

A message addressed to an individual tends to be more important than a message addressed to a distribution list, in that a reply from an individual is expected more than replies from anonymous members of distribution lists. The names contained in distribution lists are usually correct, so there is generally no misdelivery problem. However, senders type the names of individual addressees for important messages directly. Thus, when there is a misaddressed message, it is generally an important one.

When you realize that a message is not for you, use the Forward command to send it back to the sender along with your polite comment that the message has reached a "wrong number." Forwarding the message back is important, as the sender may not have a copy of that message any more. Once you have determined that you have received a "wrong number" message, stop reading it. A message sent through the message system may have personal material, and it is none of your business to peruse the entire message. (Many users who typically dispose of their received mail at a rapid clip take great delight in reading every last character of a misaddressed message—indeed, they consider it their solemn duty to do so.) It is for this reason that I do not suggest forwarding the message to the proper recipient. Determining who is the proper recipient is the job of the sender. It is presumptuous to believe that you know who the proper recipient is; you may actually forward the message to yet another incorrect recipient. Besides, determining the correct recipient may require reading more of the message than you ought to read. (If you think you know the message system name of the correct recipient by the time you realize that you are not the correct recipient, then you might include that name in your short covering note back to the sender. However, the mistaken sender should not expect correct identification of the intended recipient, just as he or she would not expect it in the telephone or postal mail systems.)

Some further points to consider are these. The "wrong number" mishaps generally happen to people who have common names and whose system names are exactly their last names. The honor of having one's system name be exactly one's last name is generally historical ("I was the first Doe hired here, therefore I'm entitled to be Doe.PA forever!") A reasonable solution would be that our system administrators ensure that no user has a name that is a suffix of another's, so that when ADoe arrives, then Doe has his or her message system name changed to BDoe, or whatever. In this way, the existing message system facilities will catch messages sent to Doe and return them as having been sent to a nonexistent name, at which point the sender can look up the correct message system name.

Rudeness and Vulgarity

The electronic mail medium joins several disparate properties of other communication media in an interesting way. The display of mail on a personal computer is a rather personal experience. Certain feelings of privacy and ownership pervade a personal computer user's relationship with his or her machine. Thus, the process of reading one's own electronic mail includes many of the personal aspects of face-to-face communication.

On the other hand, sending electronic mail is much more impersonal. The recipient is not present, and nearly none of the social strictures that govern one's face-to-face communication are present. The sender is also able to speak his or her piece completely, without any intervening exchanges with the recipients that might moderate the entire business. This situation is enhanced when the recipients are not named directly, but are addressed indirectly through an impersonal distribution list. This imbalance in

attitudes between sender and recipient has wide-ranging consequences.

One obvious consequence of this imbalance is that opinions expressed and the language used to express them in messages can be wildly inappropriate to the customs and expectations of the recipients of such a message. A reader may justifiably feel slapped in the face by a message he or she considers to be in extremely bad taste.

An interesting feature of the most annoying messages is that they tend to come from some "other" part of our messaging community. Julian Orr at PARC has observed that the most serious exchanges of antagonistic messages in our network have occurred shortly after some previously isolated message communities have joined. When the two societies meet and exchange messages, for some period the tone of the "other" community's messages has offended members of "our" community. After an adjustment period, the two communities come to some understanding and establish norms for their intercommunication. This understanding typically involves identification of subjects whose discussion will cease to cross community boundaries.

The development of the junk mail lists in our Palo Alto and El Segundo, California registries illustrates this point. Both communities established Junk^ distribution lists for people interested in any for sale ads, announcements, random comments, etc. A slow link between these two locations was replaced by a faster one, and the volume of message traffic between the two communities increased dramatically. The two lists, Junk^.PA and Junk^.ES, were combined into an AllJunk^ list. However, even though the stated purpose of both Junk^ lists was "anything goes," many PA registrants felt the ES junk mail was beyond the bounds of good taste. In other words, "their junk is much worse than our junk." A majority of the original members of these lists withdrew from the Junk^ lists, and many splinter lists developed, ranging from Whimsy^.PA ("lighthearted mail for PA") to @CrankMail.DL (a widely used private list in El Segundo). This is a history of two communities that seem to have similar characteristics. The implications for new message networks linking quite disparate communities are that more serious problems are likely to develop.

When rebuked for inappropriate behavior, errant senders have been known to say "I didn't intend it that way!" This is not good enough. The damage has already been done. The only remedy is for senders to think about what they are saying and to whom they are saying it. The message system to date has been fairly unrestricted. Only as long as the society of message system users practices self-restraint will such a freewheeling communication medium be tolerated. There are several means of applying institutional censorship to the message system traffic, means that we hope will never need to be implemented.

Message System Costs

Many of the problems associated with improper use of the message system are exacerbated (caused?) by the lack of charging for message system usage. In nearly all other modes of communication, "sending a message" implies a certain cost (or risk), which rises with the number of recipients that are being reached. Free speech is, in this sense, not free at all. Certainly in a free society, one can say what one pleases, but not without paying for the means to say it. Let me illustrate this with some examples.

In nearly every communication medium, costs for the use of that medium are borne by the sender of messages. Postal mail requires the sender to pay for a stamp for each copy of a message that is sent. Telephone service is charged to the originator of calls, and each call (in general) goes to only one recipient. Broadcasting messages via radio or television requires a large investment on the part of the sender. The costs of printing handbills or posters are likewise borne by their authors. Public speeches, if they are to reach a large audience, require use of sound systems, etc., that are paid for by the speaker.

It may be argued that recipients do pay some of the costs for using some of these systems. However, these costs (the price of a radio receiver, basic telephone service, etc.) are generally constant; they do not increase as received message usage increases. A receiver's cost for electronic mail is similar in this respect in that the cost of a workstation on which the message system runs is borne by the receiver.

Some other modes of communication do require explicit payment by the receiver. Commercial films, books, magazines, and records fall into this category. However, publication of these materials does involve a substantial financial risk. Material that is not likely to be well received is seldom published, and when it is, large costs are often incurred by the publisher.

Electronic mail as it is usually implemented has a very different cost structure. The cost for a sender is minimal. It essentially consists of the time it takes to compose and send a message. If time is considered the major cost factor, then it is the recipients who pay dearly for the messages they receive. When the amount of time each recipient spends on a message sent to a large distribution list (even if a quick scan of part of the message followed by a Delete), is summed over all recipients, this is easily much more than the time consumed by the sender of that message.

While we would like to keep the free structure of a message system, where any user can send any message to any other users, this freedom must be used with some care. When electronic message systems become widespread, they will undoubtedly change their cost structures to match those of the more traditional communication systems.

Unsolicited Mail

The existence of large public distribution lists in our message system makes it easy for a sender to reach a very wide audience. Each distribution list has a distinct purpose, e.g., lists of people interested in particular topics, lists of employees in certain organizations, lists of members of particular projects, etc. Some lists are used primarily to keep track of all users of the message system. These include such lists as AllPA^.PA, AllES^.ES, etc., which contain the names of all individuals in those particular registries. There are also some lists maintained on a purely geographical basis, e.g., PaloAlto^.PA, which lists all message system users in Palo Alto, California. This is not necessarily the same as AllPA^.PA, which includes people in the PA registry, but who may not actually work in Palo Alto.

The audiences addressed by these lists should not be considered captive audiences for all users of the message system. At Xerox PARC, the purpose of any distribution list may be discovered by any user by running the Maintain program. Although all lists are (currently) available for use by any message system user, many

lists, e.g., $All N^{A}.N$ where N is a registry name, should not be used by anyone who doesn't have a very good reason for doing so.

Many distribution lists exist for the enjoyment of their members who wish to receive items of interest to them. One should feel free to send an announcement of an upcoming musical event in Northern California, for instance, to Music^.PA. Such a message is quite inappropriate to send to AllPA^.PA, PaloAlto^.PA, etc. There are lists of message system users who have agreed to suffer through any and all messages. These lists (Junk^.PA, various @CrankMail.DL files, etc.) are the only lists to which ridiculous messages may be sent without incurring the justifiable wrath of message system users.

A message system user should understand when a message is appropriate to send to all people in his or her work group. Social values are different in different locations, and the members of each group should understand what they are. It has been observed that messages that are sent to audiences wider than the sender's immediate group are the ones that cause the most trouble.

Unfortunately, unsolicited messages have continued to be sent to inappropriate lists. Examples of inappropriate messages for standard organizational or geographic lists are:

"Does anyone know how to get my Alto fixed?"

"This is to let everyone in the message system world know that my phone number has changed."

"I want everyone to know that I really like my roofing contractor."

I'm sure that each user of the message system can recall some other similar gem. The following sections explore some of the consequences of unsolicited mail.

The Chain Reaction

To add insult to injury, after some piece of particularly ridiculous mail has been broadcast to an inappropriate audience, it invariably follows that some recipients cannot control their urge to make even bigger spectacles of themselves by sending their two cents' worth to everyone who received the original nonsense. While the original event is thought by many message system users to be annoying, the latter is considered to be downright stupid. Remember that once you push the Deliver button and watch the last chance to cancel fade away from your screen, there is no way to erase your comments from the collective memory of your peers.

I would like to list some of the typical responses that have been sent not just to the original perpetrator, but to the entire list of victims.

"Your message is inappropriate to send to all these good people."

"If you don't like junk, then get off Junk^."

"How do I get off Junk^?"

and, my favorite,

"Do you realize that if all of us replied to all of us (as I am doing right now) that the number of messages that would be sent would exceed the number of atoms in the known universe"

It is my opinion that bombarding only the original sender of a ridiculous message with equally nonsensical replies is poetic justice.

Use the Reply-To field to counteract the chain reaction phenomenon. However, there are situations in which replying to the entire list of original recipients is appropriate. In these cases, send the message without a Reply-To field, so that recipients who use Answer will get forms with all recipient names and lists included as recipients.

One final note on this topic. Although Lafite provides these mechanisms to help break chain reactions, the ultimate responsibility for messages sent lies with their senders. Always check the list of recipients in any message you are about to send.

Off-the-Record Responses

There are many situations in which a user submits a question to a wide audience, say to a distribution list of people interested in such questions, and indicates that he or she will collect responses and later make them public. This is a most reasonable thing to do, and it helps to reduce the chain reaction effect. Be sure to include a Reply-To: >>Self<< field when performing such services for your audience.

A note of caution is in order here. Messages should be considered private unless otherwise indicated. If your intention is to publish the responses, then by all means make that intention clear in the same message that poses the original question. If your message did not make that intention clear, and you decide that you would like to publish the responses, then follow up on each response asking whether you may do so.

If the intention to publish responses is clearly indicated in the original message, then publication of any response is fine, as long as that response does not explicitly mention that it should be considered private.

Masquerading

On occasion, people have received messages from fictitious senders, or even worse, from someone masquerading as another real message system user. This is a most serious breach of message system etiquette, and should be considered so by all message system users.

A fictitious From field is legitimate when a valid Sender field is included. For instance, messages that are properly signed with an organization's name, say "The Lafite Group," may be sent by explicitly typing a "From: The Lafite Group" line in the message header. Lafite will notice that a From field is already there, and it will include a Sender: *User Name* line in the delivered message instead of its usual From: *User Name* line. Any time you receive a message that has a strange From field, you may check the Sender field for the actual sender.

By a "masquerader" I mean someone who subverts the normal mechanisms embedded in the standard message system programs to send messages of dubious value, without having his or her name appear in such messages. This action is possible not only in electronic message systems, but in other more traditional communication media as well. Masquerading as another may be a criminal act when committed using traditional communication media, with penalties specified in laws that prohibit libel, slander, and fraud. Other situations, such as telephone "breathers," are similarly outlawed.

Masquerading is the most serious social problem that we deal with in our message system. It occurs very rarely (three times to my knowledge), but when it does, our message system administrators make every effort to discover the perpetrator. The consequences may be serious, and the discovered perpetrators have all apologized publicly. I quote without reference from one such apology made by a masquerader who saw the error of his ways: "It is clear that any abuse of the message system, however lighthearted the intent, has repercussions far beyond what one might expect."

At this time, I do not know of any court cases involving libel, slander, etc., in an electronic mail context. Such cases are sure to arise when electronic mail does become more widespread. Masquerading in the message system is not cute or clever. Don't do it

Wizards Versus Naive Users

This section is addressed mainly to the wizards who should know better. The population of message system users covers a broad range, from those who have knowledge of the most arcane details of a system to those who just barely understand the basics of using that system. When you send a message to a wide audience, be considerate of the naive users, who may be confused by technical jargon.

This admonition extends to those who are using a new, restricted program. It does not help a recipient to hear "Oh you're using that old program. Well, I guess you're stuck." Just don't mention such things to users who cannot take advantage of them.

The Moral of This Tale

The moral of all this is simple: Be considerate. As we strive toward this goal, everyone's use of the message system will become even more of a joy than it already is.