Singapore Management University Institutional Knowledge at Singapore Management University

Research Collection School Of Law

School of Law

1-1994

Flames on the wires: Mediating from an electronic cottage

Ian MACDUFF

Singapore Management University, ianmacduff@smu.edu.sg

DOI: https://doi.org/10.1111/j.1571-9979.1994.tb00002.x

Follow this and additional works at: https://ink.library.smu.edu.sg/sol research



Part of the <u>Dispute Resolution and Arbitration Commons</u>

Citation

MACDUFF, Ian. Flames on the wires: Mediating from an electronic cottage. (1994). Negotiation Journal. 10, (1), 5-15. Research Collection School Of Law.

Available at: https://ink.library.smu.edu.sg/sol_research/1914

This Journal Article is brought to you for free and open access by the School of Law at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection School Of Law by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email libIR@smu.edu.sg.

Flames on the Wires: Mediating from an Electronic Cottage

Ian Macduff

his article reflects a curiosity of modern life, in that it is a very preliminary comment on a kind of mediation that does not involve me moving beyond the desk where my computer is located. It is a mediator's parallel to armchair travelling, with the difference here being that the experience is not vicarious, though it is certainly remote. It may be all the more curious in that, as anticipated in earlier comments in Negotiation Journal on choice of location in negotiations (Salacuse and Rubin, 1990), this is a comment on an emerging process of negotiation and mediation that is, effectively, no place. Indeed, it is about the possibility of communication and, when necessary, mediation wherever I or others - disputants or mediators - can plug computers into telephone systems.

Personally, I have only slight experience in long-distance mediation, having served once as mediator in New Zealand with three disputants, whom I never met nor heard. Two of the dis

putants were based literally on either side of the United States, and the third was in Canada. We were brought together through our participation in an international information and news network transmitted through Internet.

The name of the particular network and the details of the dispute are unimportant here; what is significant is the fact that the dispute among people known only to each other as correspondents on this computer network, linked only by a common interest in the broadly defined subject matter of the network.

The mediation itself varied considerably from familiar practices, given the impossibility of face-to-face contact and the absence of such communicative cues such as voice tone (which at least we have in telephone conversations) and body posture. However, as in any mediation, there was the usual need to introduce and justify the idea of third party assistance and intervention; the creation of some framework for the process; and —

with time lags — the to-and-fro of information exchange and generation of options as we worked toward an outcome.

One of the many curious things about this mediation was that, while the disputants (already separated by thousands of miles and no personal contact) had little commitment to the kind of ongoing relationship that might make mediation both more suitable and more effective, they did have some degree of commitment to the "virtual community" that emerges in the public communications that take place over the international electronic mail networks. For that reason, this brief experience raised questions in my mind not only about the specifics of working in the odd environment of electronic mail ("email") disputes, but also about the wider cultural and normative contexts of disputes and settlements.

This brief encounter with electronic mediation stemmed from discussions with the moderator or "list owner" of that same network concerning the familiar problem of "flaming" on this and other networks. "Flaming" is the conventional term applied to the kind of provocative communication that is possible in the relatively anonymous, hit-and-run setting of electronic mail and computer billboards; it covers gratuitous insults and any other unnecessarily inflammatory responses or original mailings. This kind of behavior is clearly not a problem unique to the network through which the issue was initially raised: a number of other networks to which I have subscribed or from which I have sought information either provide their own tangible evidence of occasional flames, or have specific policy statements about the unwelcome nature of such flaming.

For the electronic community, flaming is a present and increasing prob-

lem. This is scarcely surprising: Bring together several hundred, perhaps a thousand people for ongoing electronic political, technological, and social chat, and someone is bound to be provocative or feel provoked. For all the remoteness of the interpersonal connections, there are still people behind the screens with all the frailties and expectations that occur in the more familiar social settings.

What this means is that the moderators of many networks face the practical issues of controlling communication but, in the democratic — occasionally anarchic - contexts of electronic exchanges, seek to minimize that degree of control while maximizing the extraordinary flow of information that is possible through this means. What this also means is that part of the substance of communication coming across the screen from time to time involves reminders as to the norms of the particular networks, interventions from moderators indicating that certain communications have not been posted to the network, and open network discussions about the varying merits of moderation, mediation, censorship, or uncontrolled posting.

This article also evolved simply from the fact that electronic communication and intimations of its potential have grown markedly, not only for the free exchange of academic and other information but also for a more deliberate and constructed process of negotiation and communication. A single recent example may illustrate both of these elements. In the months leading up to the 1992 U.N. Conference on the Environment and Development (UNCED) in Rio de Janeiro, there was a huge mass of documentation relating to the various draft agreements with which the delegations to the conference were to be concerned. Through the fortuitous discovery of contacts and connections

which email makes possible, I was able to request and receive a great deal of this documentation from a source in Washington D.C., and pass it on — electronically — to colleagues working in the field of international environmental law, one of whom was to attend the conference.

This might appear to be little other than a highly speeded-up process of normal letter-based communication (now known to the email world as "snail mail"); it is more than that in that not only is the information exchanged far more rapidly, but also such information can be sought and sourced far more readily through the hugely interlocking and open nature of electronic mail systems.

As a modern variation of the exercise in finding out how many times a named but unaddressed letter has to change hands to get from one end of the country to the other, I have found that one well-placed question to the network will typically yield the information I am seeking. But electronic networks, in the same example, indicate a potential to go beyond the mere exchange of information and to become a tool for the process of international negotiation itself.

Because of the complexity and cost of gathering delegates from a number of countries, perhaps on a number of occasions, to struggle over the wording of a draft agreement, there is significant promise in the use of electronic communication, even if only at some stages of the process of treaty negotiations. Clearly, the world is an unequal place in terms of the distribution of the telecommunications resources. Clearly, too, delegates anticipating a fully-paid trip to Geneva, New York, London or wherever might need to be persuaded of the altruistic and practical advantages of remote negotiation from their home bases. But the potential for the use of the medium for the rapid exchange of documents, especially for the kind of exchange which involves the wording of documents of which the substance has been agreed, has led to the exploration of this field by many different organizations (for example, the International Institute for Applied Systems Analysis, based in Laxenberg, Austria, through its Program on International Negotiation).

Nothing will substitute for the development of personal connections and for the immediacy of direct and personal contact in any kind of communication or negotiation. However, email as a tool for the facilitation of at least some part of the long-distance negotiation process is showing some promise. It also has the further advantage in that those involved in developing such programs are, typically, themselves email users and can continue work and communication beyond whatever conference-based or personal contact there might have been.

A fourth source of my interest in the nature of on-line negotiation and mediation is more anthropological and theoretical. The present and continuing development of forms of alternative dispute resolution began not only in a recognition that there are more effective ways of dealing with disputes than through litigation; it began also in the extensive anthropological and comparative literature on disputing and settlement. This latter contribution to the shaping of mediation and negotiation is one which reminds us of the cultural contexts of disputes, bargaining, laws, or avoidance.

In the case of on-line negotiation and mediation, the issue that is of anthropological and practical interest revolves around the rapid emergence of virtual communities, of transitory, multi-cultural, ephemeral collectives of individuals brought together in rela-

tively norm-free settings, without the typical bonds of solidarity or mutual need but with all of the potential for conflict. This cultural dimension of online disputing becomes clearer when intervention — through mediation is attempted because it is not immediately obvious in such an abnormal (or anormative) setting that there is the minimum of shared assumptions that allow the mediation to begin or proceed. The irony here appears to be that the very curiosity of this virtual culture makes it obvious that shared values about substance and process do make a difference. It becomes less likely, therefore, that the attempt to apply the increasingly familiar and typically effective models of mediation will automatically make sense or be appropriate in the electronic culture.

My reflections on on-line mediation are, therefore, not only a note about a highly specific setting for disputes and settlements; they may also be a metaphor for the processes of resolution in our increasingly relativistic, normative social worlds. It is the abnormality of mediating and communicating from the electronic cottage that takes me back to the richness of the anthropological and comparative traditions that have underpinned so much of the development of dispute resolution in the last two decades.

The Electronic Culture

Given the relatively uncontrolled manner in which electronic communication can be used, the real scope of email and the number of users is not precisely known. In order to prepare for this article, I sent out a general inquiry to one of the networks to which I am connected, asking whether any readers had information about usage. As proof of the efficacy of the networks, within 12 hours (bearing in mind the time differences

between New Zealand and the United States, the source of much of my information here) I had half a dozen helpful replies indicating that not only were there sources to which I could turn which provided reasonably current information about usage but also that the most recent estimate of user numbers on Internet alone were that there were between 12 and 15 million subscribers. That can only be a ballpark figure, given the gap of three million between the higher and lower estimates. Add to that the fact that, in addition to Internet, there are also Bitnet, Janet, USENET, FidoNet, UUCP, and conferencing systems such as WellNet and CompuServe. Obviously, there are many people hooked into at least one of these networks and probably with access to others.1

Those networks provide not only direct access between individuals (and programs such as "maX 500" make it increasingly possible to discover whether your colleagues in distant places are on some email system and have an electronic address); they also provide connections to a vast range of professional and interest-based "conferences" that allow for open-forum discussion of whatever it is that is broadly the subject field covered by the particular net. Add to this the wellestablished facility provided by computer "bulletin boards" which are sources of information, shareware programs (and viruses) and communication, and the picture emerges of the vast traffic in information and the potential for misunderstanding or conflict. This emergent picture of instantaneous communication is a very practical illustration of the kind of world which futures theorists anticipate as features of the global culture (e.g., Toffler, 1971, 1975: Naisbitt, 1982; Naisbitt and Aburdene, 1990).

Two main sources of conflict or two main indications as to the likely uses for on-line negotiation and mediation skills exist. First, as suggested earlier with the example of international environmental negotiations, electronic mail has the potential to be used specifically and deliberately for the processes of remote bargaining, document preparation and communication. It is, therefore, quite explicitly a medium for negotiation. In the same way that the tools of telecommunications have required the development of skills and conventions in, for example, telephone and video conferencing, so too will the use of email for long distance negotiation require the development of appropriate structures, processes and norms. Secondly, the rapid growth in this form of communication, and some of the features of the remote and relatively anonymous participation that it allows, mean that there will be innumerable opportunities for misunderstandings, provocations, and plain abuse to arise. This is less likely, of course, where the communication is one-to-one between colleagues, even if they have never met. But it is very likely on the public, open forums to which access is only as restricted as the possession of a computer, a modem, and some basic information about the address of the networks.

Mediation has potential in both of these settings — the deliberate development of electronic conferencing and the public forum of electronic networking. For my purposes in this article, my comments are largely oriented toward the second. In the first setting, there will need to be all of the attention to the creation of normative and procedural frameworks that will allow the technology to be the liberating and practical tool that it has the potential to be. In the second setting, the

growth of networks in a largely anarchic manner makes the creation of such normative conventions rather more difficult but, for the same reason, all the more important. Here I offer only a few observations about what is currently shaping participation and communication on the open networks and how these may in turn shape the kinds of interventions that network moderators regard as necessary from time to time.

In the weeks prior to preparing the first draft of this article, I linked up with a new interest-based network (which, like many others, has the practicalities of computer use in education and communication as its main focus). What has been especially interesting in reading the correspondence to this forum is that - at least in these early days — only part of the discussion has been substantive, that is, directly concerned with the details of the subjects with which the forum is concerned and for which it was formed. A large remaining part of the correspondence has been procedural and tentatively normative: it has been, in a limited way, a correspondence about creating the "culture" for this channel of communication. And even at this level, the potential for disagreement becomes clear involving, on a couple of occasions, the intervention of the moderator or list-owner. The contributions or correspondence touched on issues such as whether the forum should or should not be moderated, or whether "commercial" contributions or advertising were to be allowed, quite apart from the predictable differences of opinion, often forcefully expressed, over the competing merits of various bits of hardware and software.

At this point, too, the contributions readily turn to the style of correspondence — that is, whether some broadly familiar conventions of politeness

might be enforced, or whether what one correspondent regards as abrasive or abusive is regarded by another simply as vigorous discussion. What also occurs — not only in this particular forum — is a certain jostling for position, in terms of expertise, experience, technical superiority (or, curiously, a kind of moral superiority derived from a technological inferiority).

There are four particular features of electronic communication that make disputes both more likely to arise and more difficult to deal with. They are: participation, interests and needs, substance, and norms.

Participation. The culture of email is one which, within technical and some network limits, practically anyone can enter. It is, therefore, multidimensional, probably multicultural, certainly politically very diverse, and, for the most part, one in which participants are typically unaware of the personal details of their fellow correspondents. From one perspective, this last point might seem to be the ideal in that we all operate from behind a "veil of ignorance" which obscures our knowledge of our own circumstances, though not our knowledge that there are different circumstances (Rawls, 1971). From another perspective, such ignorance may be precisely the problem in that, in not knowing what the circumstances and sensitivities of others might be, assumptions are made and comments written which can too readily offend. Further, notwithstanding the assumptions that might be made about the advantages of "objective" conditions of bargaining, it is often precisely our circumstances and our differences which are the stuff about which we need to bargain. And, unlike the case with most normal cultures, entry is relatively easy and relatively invisible; exit is equally easy and invisible. This electronic culture demands no commitment other than the interest of the participant: she or he can leave at will, either because the path of avoidance is preferred, or because there is no stronger — normative — reason to stay.

Interests and needs. Email participants may have widely differing interests, needs, and expectations in joining any correspondence. They will also demonstrate widely differing interests in the level of participation they choose to express. It is entirely possible to logon to an electronic forum, and not say a word - and no one will be the wiser. Also, given the uneven distribution of technical experience and equipment, participants range from the heavily-equipped computer literate to the modestlyequipped barely articulate. And it is not uncommon for each to become annoved at the assumptions or contributions of the other.

Substance. Briefly, the question will arise as to what this particular forum or network is for. This question arises. as far as I can tell, either because a line of discussion appears to be leading in a novel (illegitimate) direction, or because it introduces an undesired element (for example, commercial advertising), or because a new entrant to the discussion, understandably puzzled, asks the necessary and naive question. Participants in an electronic forum might then wonder what brings them together other than the forum itself. And, as in any more familiar discussion, participants will have views on the substance of whatever is being discussed, and will express those views with more or less vigour, according to their personal style and their apprehension of the prevailing social conventions.

Norms. It may well be that each of the preceding points could be collapsed into this one; that is, what is the normative framework of the particular forum or community that will shape participation and communication? Three points can be made about this issue at this stage. First, as indicated earlier, at least some of the correspondence on the networks tends to be normative rather than substantive. Second, many, if not all, networks have policies on participation and contribution: many are, because of the more obviously political or provocative nature of their subject matter, moderated (and contributions will only go out to the public after being filtered through a moderator).

Third, there are conventions that, in relatively minor but necessary ways, substitute for the lack of visual and auditory cues that are a vital part of ordinary communication. Those who have done telephone mediation are aware of how vital the auditory cues become in the absence of the visual cues. And those who are already email users will be aware of the conventions, the signs, that can be dropped into correspondence, particularly to indicate that a potentially inflammatory statement is not meant to offend. One such convention is the "smiley" — the smiling face which invites the reader not to take a statement amiss. Within the limitations of the normal keyboard, these conventions can become quite imaginative, adding winks, double smiles and more to the repertoire. It is even possible, by using upper case letters, to SHOUT in email. All of this indicates, as suggested at the outset, how vital the cultural and normative setting is both for the avoidance of conflict so far as possible and its resolution when, almost inevitably, it occurs.

Disputes

Given the foregoing comments, the nature and source of on-line disputes will be reasonably clear. The types of disputes, at least in the conferences to which I subscribe, can be summarized under five headings: procedural, substantive, cultural, technical, and hierarchical.

Procedural. These disputes are about conventions of participation and correspondence including, for example, disputes as to whether correspondents ought to provide full signatures and institutional affiliation where appropriate, given that the electronic mail address which is automatically generated with any correspondence is no obvious indicator of either piece of information. And, to give a recent example, where an institutional affiliation is given, is this automatically and invariably to be taken as a statement that the correspondent is a member of the institution and not "merely" a student? Clearly, in the absence of formal and visible signs, we still seek some sort of indication of the identity of those with whom we correspond. By the same token, correspondence such as this produces the expected response that none of this social and identity stuff matters; indeed, the very virtue of email is that it gets away from the trivial details and allows concentration on substance. But the intensity of correspondence on issues such as this suggests otherwise.

Substantive. These are disputes arising directly from the subject matter of the forum, whether it is directly computer-related or, more likely, political, education, international, gender-related, or touching on any other

matter that human beings tussle over in ordinary communication.

Cultural. While this category is a matter of substance and might well fall under the previous heading, it is also a significant matter in its own right. Any item of correspondence is likely to be read by people from a wide range of cultural backgrounds. Interpretations and responses are, therefore, not only substantive but also cultural. It is also the case that cultural norms are more likely to be obscured by the form of communication and by the assumptions as to the neutrality of the medium. Cultural issues as sources of conflict become all the more important in the contemporary context of political and social discourse. Cultural identity is clearly a part of the specific agenda of a number of correspondence nets; cultural agenda and norms shape responses to issues which, until relatively recently, might have been assumed to be politically neutral or subject to universal norms. If the discourse that takes place on the electronic nets is part of the wider metaphor for the shape of communication and conflict in society, then clearly and appropriately cultural identity and sensitivity will shape participation, substance and — when conflict arises — the nature of our responses.

Technical. Given the nature of the medium, it is scarcely surprising that a great deal of the exchange, and some of the disputes, will be about technical matters, competing utilities, personal or institutional preferences, and a degree of techno-snobbery.

Hierarchical. Even in an unstructured, supposedly open, sometimes anarchic setting such as that of email, there is still an element of the pursuit of priority, whether it is on the basis of rank (professors are more important than graduate students, who in turn

are more important than undergraduates, and so on); expertise (professors often know a lot less about computing matters than the average 12-year-old); ethnicity; or some other criterion which may or may not have any relevance to the 'conference' and its participants.

* * *

Under any of these headings, correspondence and disputes are shaped by the very nature of electronic communication, by the randomness and unpredictability of participation, by the possibility of late entrance to any discussion, by the hit-and-run capacity that any correspondent has, and by a degree of anonymity which is only breached by weak conventions as to self-identification and the limited possibility of identification from one's email address (and which is enhanced by the possibility that correspondents to some conferences may elect to have their identity concealed by an automatic command to the list-server computer). This, then, is a curious setting in which the possibility of conflict is certainly not diminished but is made rather more slippery to deal with.

Responses

For all the unconventional features of electronic communication and on-line disputing, there are familiar features. Of these, perhaps the most familiar remains that of establishing the legitimacy of intervention for the purposes of resolution. On-line intervention, as in ordinary social life, can be invited, thus creating a path to legitimate third party participation. But the very nature of time-delayed, long-distance communications, differing expectations as to the vigor of discussion, unclear expectations as to the role of conference moderators and the absence of conventions concerning roles such as those of mediators, can mean that it is more difficult to get on-line disputants to the table than it is in the case of people facing off against each other in person. It may also be that the occasionally anarchic nature of those who devote a great deal of time to life at the keyboard means that they are more inclined to view with disfavor the apparent surveillance by moderators which may lead to active intervention or attempted dispute resolution. If on-line mediation is to be seen in any sense as a metaphor for intervention and resolution in more normal social settings, what it does tell us is that the issue of legitimacy is at the core of the exercise, as important as any discussion of the skills and strategies of intervention and dispute management.

Assuming the issues of legitimacy to be resolvable in any immediate case. one useful overall framework for intervention is that provided by the disputes system design model (Ury, Brett, and Goldberg, 1988). The value here is that initial attention is necessarily paid to the processes which may already be in place (if any) and which now prove ineffective or inadequate. In this respect, the disputes system design model, as a framework for on-line conference moderators, is a pointer to the fact that new institutional structures cannot be built on content alone (that is, simply on the shared or common interest of the enterprise) but rather that explicit attention is to be paid, at the outset, to the norms and conventions by which disputes will be acknowledged and managed. It is probably a feature of most computer based networks that the medium obscures the need for the normative and procedural message.

Whatever the model chosen, many of the conventions of mediation or other intervention will still need clarification, amongst these being:

- the role and status of the intermediary;
- the groundrules for the management of the communication, realizing that this communication is likely to be marked by some time delays between responses;
- the values and norms to be affirmed in the process, given that the disputants' commitment to norms relating to resolution may be weak by virtue of a correspondingly weak commitment to any moral community;
- the process itself, given that a dispute which begins on-line may well be better taken off-line during the direct exchanges between the disputants and the mediator, and that it may also be appropriate to channel communications through the mediator though there is no real way of stopping direct communications between email correspondents;
- identification of appropriate outcomes or sanctions, in that the weak nature of the electronic community means that the strongest sanctions are going to be those of publicity or exclusion from participation in any on-line conference.

Ideally, of course, this last point does not arise in that sanctions in a formal sense are displaced by agreed resolution, the substance of which can be made public, if appropriate, on the network.

Conclusions

All of the issues mentioned here can be taken as a kind of "thinking out loud" about an ongoing interest and practice. This discussion is also an invitation to others to respond either from experience or theory. At this stage, tentative conclusions can be suggested. First, what this limited experience makes clear is that disputes, bargaining and settlement occur within identifiable cultural and normative settings. While it may be true that there are common features to mediation and negotiation in many contexts, the process is no grid-map that can necessarily be fitted to a new terrain especially when that terrain is, as in this case, virtual and not located anywhere. Second, it follows from this, that it becomes all the more important for conveners or moderators of electronic correspondence networks to create the basic normative framework that will facilitate both the substantive communication and intervention that are appropriate.

Third, and more specifically, one of ways in which this might be done is by the use of some form of agreement or convening clause (Slaikeu and Hasson, 1992) for entrants to an electronic conference which, while it does not establish all of the norms of conduct on the net, will at least provide the basis for agreement as to the process to be used in the event of disputes. This ought not be too burdensome an addition to the exercise of adding one's name and email address to an ongoing conference.

Whatever the strategies and structures that might be developed to respond to the needs of the electronic communities and correspondents, they may well have a wider application. If, as suggested earlier, some features of this virtual community, its style of communi-

cation and sources of conflict can be taken as a metaphor for the shape of the modern world, these are features of a world of increasingly shallow, interestbased, instrumental commitments, marked by ease of exit, the possibility of nonparticipation, and a significant degree of moral relativism.

More positively, the electronic setting and experience may be models of the increased openness and ease of communication, the democratization of access and participation and a substantive example of the discourse which postmodern political and critical theorists see as the substitute for modernist formal and institutional structures. There is, in this, a liberation of technical, political, social and moral communication; but there is not necessarily the normative framework nor capacity to shape the communication and conflicts that occur.

The strongest metaphor that the world of electronic communication might provide is that of the interconnectedness of the modern world and, regrettably, the graphic exclusion of large parts of the world from those connections. What is clear is that electronic communication, and the associated virtual communities of electronic correspondents, will continue to grow. This is the incentive both for a desktop anthropology of such virtual communities and their normative life (such as it may be) and for a theory and practice of desk-top — even lap-top conflict resolution.

NOTES

The author wishes to express his thanks to the German Government which, through the Deutscher Akademischer Austauschdienst, provided fellowship assisistance for part of the ongoing research on this project during a period of sabbatical leave at the University of Freiburg im Breisgau, and to Gary Trujillo, for electronic conversations and encouragement.

1. Since writing this paper, I have received an offprint of an article by a former member of Victoria University who saw my initial inquiry, identified his old university, and sent me an email message. His article, "Social-psychological factors in electronic networking" (Boshier, 1990) reinforces the substantive information that there is a major educational, communicative and networking community in the making through electronic mail. The receipt — and the message — of the article remind me also to reinforce the message that there is huge constructive potential in electronic networking, lest the image be created in my article of the greater potential for conflict. The legal issues for resolving disputes arising out of denial of access to, and defamatory statements on, electronic mail networks have been discussed by Henry Perritt (Perritt, 1993)

REFERENCES

Boshier, R. (1990). Social-psychological factors in electronic networking. *International Journal of Lifelong Education*. 9: 49-64.

Naisbitt, J. (1982). Megatrends. London: Macdonald & Co.

Naisbitt, J. and Aburdene, P. (1990). Megatrends 2000. London: Sidgwick & Jackson.

Perritt, H. H. (1993). Dispute resolution in electronic network communities. Villanova Law Review 38: 349-401.

Rawls, J. (1971). A theory of justice. London: Oxford University Press.

Salacuse, J. and Rubin, J. Z. (1990). Your place or mine? Negotiation Journal 6: 5-10.

Slaikeu, K. A. and **Hasson, R. H.** (1992). Not necessarily mediation: The use of convening clauses in dispute systems design. *Negotiation Journal* 8: 331-337

Toffler, A. (1971). Future shock. London: Pan Books.

--- (1975). The Eco-spasm report, New York: Bantam.

Ury, W., Brett, J., and Goldberg, S. B. (1988). Getting disputes resolved: Designing systems to cut the costs of conflict. San Francisco: Jossey-Bass.