Netizens: An Anthology
Part III - And the Future?

Chapter 11
The NTIA Conference on the Future of the Net Creating a Prototype for a Democratic Decision Making Process

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In Spring 1995, a special issue of *Scientific American* appeared exploring the advance that the computer and communications revolution is having for our times.[1] In the introduction to the issue was a cartoon. The cartoon shows several paleontologists on the trail of a major new discovery. The caption reads: "Well, I don't see any point in looking any further. It was probably just one of those wild rumors." The cartoon shows they are standing in the midst of a huge footprint. However, because it is so large, they do not see it.

This cartoon is a helpful analogy to our situation today. There have been very significant computer networking developments in the past 30 years, but these advances are so grand that it is easy to miss them, and to begin to turn back, just like the paleontologists. It is important to understand what these advances are, so we can recognize them, and learn what direction the footprints point in, rather than turning back.

Today we are at a turning point in terms of what the future direction of the Global Computer Network will be. Changes are being made in U.S. policy and in the policy of countries around the world regarding the Net and Net access and thus there are important issues being raised about what the new policy will and should be.

In response to criticisms in the U.S. that the on-line community was not being involved enough in the setting of the new policy, an on-line conference was held November 14-23, 1994, by the U.S. National Telecommunications Information Administration (NTIA). The NTIA virtual conference was co-sponsored by the National Telecommunications Information Administration and the Information Infrastructure Task Force (IITF), as part of the U.S. government's National Information Infrastructure Initiative. The conference gave people both in the U.S. and around the world a chance to discuss their concerns about how to expand access to the Net.

To take part, people needed a computer, either their own or one at a limited number of public access sites that were set up around the U.S. in public libraries and other public places. The on-line conference was available via a mailing list, where all the posts were sent to the e-mail mailboxes of those who subscribed, or as a Usenet newsgroup available at a limited number of sites. Also a World Wide Web site was set up where a netuser with access to a browser could read the posts, but could not participate. There were several forums on different topics, two of which discussed increasing access to the Net for a broader sector of the population. At the end of the conference an archive of the proceedings was to be available via the World Wide Web.*

One paper posted to the on-line conferences described the social and technical advance for those who participate in the Global Computer Commmunications Network. The author of the paper wrote: "Welcome to the 21st century. You are a Netizen, or a Net Citizen, and you exist as a citizen of the world thanks to the global connectivity that the Net makes possible. You consider everyone as your compatriot. You physically live in one country but you are in contact with much of the world via the global computer network.

"The situation I describe is only a prediction of the future, but a large part of the necessary infrastructure currently exists…. Every day more computers attach to the existing network and every new computer adds to the user base – at least twenty five million people are interconnected today…."

"We are seeing a revitalization of society. The frameworks are being redesigned from the bottom up. A new more democratic world is becoming possible."[2]

This paper was one of the many contributions in response to the NTIA statement welcoming participants to the on-line conference. The NTIA listed several purposes for the conference. Among those purposes were:

"1) Garner opinions and views on universal telecommunications service that may shape the legislative and regulatory debate.

2) Demonstrate how networking technology can broaden participation in the development of government policies, specifically, universal service telecommunications policy.

3) Illustrate the potential for using the NII to create an electronic commons.

4) Create a network of individuals and institutions that will continue the dialog started by the conference, once the formal sponsorship is over."

"This conference," the NTIA explained, "is an experiment in a new form of dialog among citizens and with their government. The conference is not a one-way, top down approach, it is a conversation. It holds the promise of reworking the compact between citizens and their government."[3]

What was the response to the call?

In the process of the week long discussions a number of voices complained about the commercial entities that were slated to take over the U.S. portion of the backbone of the Internet. Many expressed concern that government intervention was needed to make access to the Net broadly available. They gave experiences and examples to demonstrate that leaving the problem of expanded access to commercial entities would not solve the problems that expanded access required be solved. For example, one participant wrote: "I want to add my voice to those favoring greater, not less, government intervention…to protect the interest of the people against the narrow sectarian interests of large telecommunications industries. Why the federal government gave up its part ownership in the Internet backbone is a mystery to me. An active interventionist government is essential to assure universal access at affordable prices (for)…people living in (the) heart of cities or in the Upper Peninsula of Michigan."[4]

A number of people from rural and remote areas participated and explained their concern that they not be left out of the on-line future because connecting them to the Net would not be profitable.

In response to a post from someone in Oregon, a librarian from a remote area of Michigan wrote: "I'd like to hear more from the Oregon edge of the world. Being from a small, rural library in the Upper Penisula of Michigan, with a very small tax base…faced with geographical isolation and no clout…how do we get our voices heard and assure our patrons equal and universal access to these new and wonderful services…we have no local nodes…every hook up is a long distance call. What are you doing over there?"[5] A participant working with a scientific foundation echoed this concern. He wrote: "When faced with the resources and persuasive power (legal and otherwise) of enormous multinational corporations with annual incomes that are orders of magnitude greater than some of the territories they serve, only a capable and committed national guarantee of access, and a national cost pool can provide access to these new technolgy resources." "And THE INTERNET IS SPECIALLY IMPORTANT to areas with limited access to technical and scientific resources. As one of the leading non-profit educational foundations devoted to the environmental problems of small tropical islands, we (Islands Resources Foundation) are amazed at the richness of the Internet resource, and terribly concerned that our constituents throughout all of the world's oceans are going to (be) closed off from access to this resource because of monopoly pricing policies." Speaking to the NTIA, he urged, "we ask careful attention to the equity issues of access, and a federal guarantee of access and availability."[6]

Recognizing that people without computers or net access would not be able to participate in this conference because they did not have computers and modems already available, a limited number of public access sites had been set up. One participant from San Francisco explained why making such access to the Net available was so important:

"I am sitting in the corner of the card catalogue room at the San Francisco main library,(…) doing what I hope I will be able to do for the rest of my years: use computers freely. Internet, on-line discourse, rather is invaluable; the role of the computer-friendly mind is becoming ever greater and the need to communicate within this medium needs to remain open to all. If not, we will fall into the abyss of the isolated world…. We could become isolated in a cubicle existing only through our computer… I would choose otherwise. Keep computers part of the schools and libraries, and definitely make (the) Internet free to any who wish to use it. Otherwise we are doomed."[7]

Another user expressed support for library access and participation. He cautioned: "If things go as it looks they are going now, libraries will lose out to business in the war for the net. Yes, this means that we will be drowning in a deluge of what big business tells us we want to hear and the magic of the net will vanish in a poof of monied interests. Some estimates that I have read say that it should cost no more than $10 a year per user for universal access to the national network, including library sites so that those without phones or home computers have access. The NSF has decided against funding the internet anymore and all the talk of (…)(late) is about the privatizing of the net. No one seems to get the point involved (or, worse: They *do* get the point.). The backbone of the net should be retained by the government. The cost is relatively inexpensive and the benefits are grand. Paying large fees (some plans call for charges based on the amount of data consumed and others by time spent net-surfing) defeats the nature of the net. We have possibilities for direct democracy. At the very least, for representation of mentally distinct groups as opposed to physical. That is, now we are represented in Congress by geographical area, not what our opinions support…."[8]

Several people complained how Net access was not only difficult because of the cost of

modem connections, but that for many people it was a financial hardship to even own a computer. As one user from Virginia explained: "As a newcomer to the net, I don't feel I have much relevant to say. All this chatter about Info Superhiways strikes me as so much political doubletalk. The hiway exists. But to drive on the damn thing you need a car. Computers (macs or pcs, etc.) are not items that someone making 6 or 7 dollars an hour can easily obtain."[9]

Others described the efforts in their areas to provide public access to the Net. In Seattle, we learned that the Seattle Public Library and the Seattle branch of Computer Professions for Social Responsibility had set up a system that made e-mail access and an email mailbox available to anyone in Seattle who wanted it.

We learned that in Blacksburg, Virginia, U.S. government funds had helped to set up the Blacksburg Electronic Village by installing fiber-optic cable to all new apartments being built so the people would have direct access to the Internet.[10]

Canadian participants described how the Blue Sky Freenet in Manitoba Canada was providing access to all of Manitoba with no extra long distance phone charges to small rural areas. We were told that in Manitoba, "They have basically a hub in each of the different calling areas…some places will be piggy-backing on CBC radio waves, others on satellite connections."[11]

Also proposals were made to provide access to other forgotten segments of the society like the homeless. A user from San Francisco proposed that terminals with network access be installed in homeless shelters. The person explained: "Provide homeless shelters with online systems frozen into Netnews and e-mail, or e-mail and gopher. A 386 terminal running Linux, Xwindows and Netscape, and linked into a user group such as e-mail and gopher, etc., would permit defining the lowest level of involvement. People need communication to represent themselves, and e-mail for that reason, as well as Netnews."[12]

People from other countries also contributed to the discussion providing a broader perspective than might normally be available in a national policy discussion. For example, from the Netherlands came the following observation: "After attending the Virtual Conference for two days now, I would like to give my first (contribution) to the discussion. Since I work for the government of the Netherlands, at the Central Bureau of Statistics, which is part of the Department of Economic Affairs, the question of availability of statistical figures intrigues me. As a result of safety-precautions there is no on-line connection possible with our network. There should, however, be a source for the public to get our data from, we get paid by community-money so the community should benefit (from) the results of our efforts. I am wondering how these matters are regulated in the other countries who participate in the Virtual Conference." "With kind greetings," he ended.[13] And a Psychology Professor from Moscow State University in Russia wrote: "Hi, netters: (He explained how he had subscribed to only two mailing lists dealing with network access because he would only have time to read the few messages he expected there.) I'm glad I'm wrong," he admitted. "I can't follow the massive traffic of discussions. Sometimes my English is too poor to grasp the essense, sometimes I don't know the realities, legislation etc. Some themes I'm greatly pleased with…I agree gladly with Larry Irving – (of the NTIA who had said he was-ed) thrilled with the volume of traffic & quality of discussion. I am, too. Perhaps I'll find more time later to read the messages more attentively. I shall not unsubscribe, though."

"The people in the 2nd & 3rd worlds," he continued, "are just now trying to find our own ways to use the Internet facilities & pleasures. I am interested in [the] investigation of these ways, in

teaching & helping them in this kind of activity. Besides, my group is working on bibliographic database construction and letting…remote access to it. For several days only we got an IP access to the WWW, we are not experienced yet to access. So I use ordinary e-mail. Good luck to all subscribers," he ended. "I wish you success."[14]

Also, as part of the discussion several participants discussed how they felt the ability to communicate was the real achievement represented by the Global Computer Network, rather than just the means provide information.

In her message, "Not just information ----------> Communication, a participant from Palo Alto, California wrote, "…the NTIA is building a one-way highway to a dead end when they take the word Telecommunications out of their rhetoric." She listed several points for people to consider, among which were:

"1. Information is always old already

2. Telecommunications, properly algoritmed, provides dynamic information about who we are as the human race….

3. Telecommunications is the road to direct democracy and a future for this planet.

4. Downstream bandwidth is just another broadcast medium. Upstream bandwidth is power for the people."[15]

In a similar vein, another participant wrote: "To start off, I take issue with the term 'service'. As I have stated…the terminology being used is being adopted from an out-dated model of a Top-Down communications system. The new era of interconnection and many-to-many communication afforded by Netnews and Mailing lists (…) brings to the forefront a model of bottom-up rather than top-down communication and information. It is time to reexamine society and welcome the democratizing trends of many-to-many communication over the one-to-many models as represented by broadcast television, radio, newspapers and other media. Rather than service, I would propose that we examine what 'forms of communication' should be available. So instead of talking about 'Universal Service' we should consider 'Universal Interconnection to forms of communication.'"[16]

These were just some of the many concerns raised in this week long on-line conference supported and sponsored by a branch of the U.S. government. The people participating, raised serious questions as to whether the real issues needed to make access available for the many rather than limiting it to a multimedia plaything for the few, would be considered and examined. Many were concerned for those who did not now have access to the Net, either because they did not have modems or even more fundamentally because they could not afford computers. Thus there was a significant sentiment that computers with network access be made available in public places where people could have access, like public libraries.

One participant noted that current policy was favoring a few people having video connections rather than the many having e-mail capability. He requested that the U.S. government: "Redirect some of the funding for high end technology into getting the mainstream public onto the net. Instead of funding an hour of video between two users, we should use the money to let 100,000 users send

an email message."[17]

Summing up the sentiment expressed during the conference, a participant wrote: "I find it hard to believe a state can function in the 21st century without a solid information infrastructure and citizens with enough technological savvy to use it."[18]

The conference was a very significant event. From cities to rural and remote areas, people made the hard effort to express their concern and commitment to making access available to all and to protest the U.S. government policy of giving commercial entities the Net as a policy that is in conflict with the public and social goal of universal low cost or free network access.

Despite hardships that people experienced to participate – mailboxes got clogged with the volume of email that people could not keep up with, newsgroups appeared late on Usenet and at very few sites so it was hard to get access to them, the lack of publicity meant that many did not find out till the conference was almost over, etc., the people who participated did what they could to contribute to and speak up for the means for everyone to be able to be part of the Net as a contributor not just as a listener.

A new government form was created which is very different from what has existed thus far. This on-line conference made clear that the hard problems of our time can be solved only if the most advanced technology is used to involve the largest possible number of people in the decisions that will affect their lives.

The NTIA conference, using mailing lists and Usenet newsgroups, to have broad reaching on-line discussion, created a prototype for how ubiquitous networking access can be achieved within the U.S. and elsewhere. The NTIA conference demonstrated that only in the involvement of the many can the important problems of the times be analyzed so they can be solved. And the Internet and Usenet, vital components of the global computer network, are providing important means for people to contribute to the needed discussion to determine what decisions will be helpful or harmful concerning the future of the Net.

Even though the NTIA conference meant a much broader sector of the population than ever before were able to participate in the policy discussion over the future of the Net, one of the participants explained why this process was only a prototype of what was needed. He wrote: "I think this conference was accessible to more than just 'elite technocrats.' I, for instance, am a graduate student at the U of MN. I have access because everyone who attends the University has access, and can apply their access via numerous computer labs that are open to all students. I think a lot of people don't realize that we're at a very critical point with determining the future of resources such as the Internet. I join you in hoping that no irreversible decisions are made on the basis of this conference – there needs to be a much wider opportunity for public comment."

Epilogue

What was the significance of the NTIA conference toward helping to determine what direction government policy should take regarding the future of the Net?

When the NTIA conference was held in November 1994, many of the participants expressed their dissatisfaction with the plan of the U.S. government to turn the backbone of the U.S. portion of the Internet over to private and commercial interests by May 1, 1995. Despite the serious questions raised about the objectives of U.S. policy by those participating in the on-line conference, and despite the fact that the stated goal of the conference was to involve citizens in helping to

formulate policy objectives, the U.S. government ignored the concerns and voices raised during the on-line conference, and went ahead with their plans to privatize the U.S. portion of the backbone of the Internet. At the same time, the NTIA scheduled a new on-line conference on May 1 - 9 to discuss, among other questions, electronic democracy. During that on-line conference, the discrepancy between the stated objectives of opening policy decisions up to public discussion and input and then carrying out government policy by ignoring these concerns, were raised. Also, on May 1, 1995, there was a program at the Mid-Manhattan branch of the New York Public Library. The program was about the importance of what the Net represents to people around the world and about the future potential of this new means of communication. At that meeting, people expressed their concern that the U.S. government would try to impede access to this important resource, rather than help to make it more broadly available. Also, people at the meeting insisted that another meeting be set up to discuss what to do to make this important new resource available to a broader sector of the population.

One of the difficult dilemmas of our times is how to deal with the disparity between government words that they want input into policy decisions, and their actions of ignoring that input. Looking back at a similar turning point in the development of the computer can provide some helpful perspective. At a conference at MIT in 1961 on the Future of the Computer, one of those present pointed out that no one knew what that future would be in the short term or the long term. Therefore, he recommended that it was important to decide what type of future it was worthwhile to encourage and to work to make that future a reality.

Thus the NTIA conference achieved two important results. It clarified that when people have on-line access and are invited to participate in a public policy discussion on an important issue, they will contribute in a way that identifies the principles to shape that public policy. The second result was that it demonstrated that the U.S. government policy of privatizing the U.S. portion of the Internet is at odds with the principles clarified during the NTIA on-line conference called to provide public input into that policy. Therefore, the on-line conference demonstrated that there is a need to take up the challenge to make the future one that will serve the principles of broad and ubiquitous access clarified by the NTIA on-line conference. The on-line conference established the principles, but there is a need now to determine how to implement those principles.

Notes for Chapter 11

1. "The Computer in the 21st Century," *Scientific American*, Special Issue, 1995, p. 4. (Cartoon by Charles Addams, The New Yorker Magazine, 1952, 1980.)

2. From: Michael Hauben <hauben@columbia.edu>
   Date: Wed, 23 Nov 1994 00:49:16 -0500
   To: redefus@virtconf.ntia.doc.gov
   Cc: avail@virtconf.ntia.doc.gov
   Subject: Netizen Speech
   Message-ID: <199411230549.AA14335@aloha.cc.columbia.edu>

3. From: NTIA Virtual Conference <ntia>
   Date: Mon, 14 Nov 1994 09:07:56 -0800
   Message-Id: <199411141707.JAA06933@virtconf.digex.net>

To: avail, intellec, opnacces, privacy, redefus, standard
Subject: NTIA Virtual Conference KeyNote Address

4. From: James McDonough <epin@access.digex.net>
   Subject: Re: [AVAIL:42] Re: my question
   Message-Id: <Pine.SUN.3.91.941116094225.11331A-100000@access2.digex.net>

5. From: Cynthia S. Terwilliger <twigs@umich.edu>
   Date: Nov 15 20:42:07 1994
   Subject: Re: [AVAIL:32] Re: Key Issues of Affordabilityand Availability
   Message-ID: <Pine.3.89.9411152007.B7150-0100000@sils.umich.edu>

6. From: Bruce Potter <ab368@virgin.uvi.edu>
   Date: Tue, 15 Nov 1994 00:27:42 GMT
   Message-ID: <1994Nov15.002742.7646@virgin.uvi.edu>
   To: avail@virtconf.ntia.doc.gov
   Subject: Need for Federal Oversight of Access and Availability
   (For Island Resources Foundation, iresource@aol.com)

7. San Francisco Public Library, "SFPL::NTIA_PUB"@DRANET.DRA.COM
   Message-Id: <941116184335.20212906@DRANET.DRA.COM>

8. From: Sean <sconnell@silver.ucs.indiana.edu>
   Subject: Re: [AVAIL:41] my question
   Date: Wed, 16 Nov 1994 00:33:24 -0500 (EST)
   Message-Id: <199411160841.AAA27213@virtconf.digex.net>

9. From: Jamie Dyer <jdyer@Hopper.ITC.Virginia.EDU>
   Subject: Internet Broadcasting Corp
   Message-ID: <CzIIDo.96q@murdoch.acc.Virginia.EDU>
   Organization: University of Virginia
   Date: Sat, 19 Nov 1994 11:25:00GMT

10. From: Bob Summers <bsummers@vt.edu>
    Date: Wed Nov 16 19:59:39 1994
    Message-Id: <199411170359.TAA09478@virtconf.digex.net>

11. From: Paul Holden <az908@freenet.carleton.ca>
    Newsgroups: alt.ntia.redefus
    Subject: Universal Access and the Feds...
    Reply-To: redefus@virtconf.ntia.doc.gov
    Date: Wed Nov 23 22:01:42 1994

12. San Francisco Public Library, "SFPL::NTIA_PUB"@DRANET.DRA.COM

13. From: Frank D. Bastiaans, Statistical Analyser, Division Trade and Transport
    Date: 16 Nov 1994 16:35:56 MET
    Subject: Availability of statistics
    Reply-To: FBSS@cbs.nl
    Message-Id: <81430000.00000000006A.FBSS.Z9H374IJ>

14. From: Alexander Voiskounsky <vae@motiv.cogsci.msu.su> (Psychology Department, Moscow State University)

Newsgroups: alt.ntia.redefus
Subject: Re: [AVAIL & REDEFUS]
Date: Sat Nov 19 09:24:42 1994

15. From: Marilyn Davis <evote@netcom.com>
    Message-Id: <199411150111.RAA27335@netcom12.netcom.com>
    Subject: Not Information ---> COMMUNICATION
    To: redefus@virtconf.ntia.doc.gov
    Date: Mon, 14 Nov 1994 17:11:07 -0800 (PST)

16. From: Michael Hauben <hauben@columbia.edu>
    Newsgroups: alt.ntia.avail
    Subject: Need to stress concept of active communication and interconnection
    Reply-To: avail@virtconf.ntia.doc.gov
    Date: Tue Nov 22 05:03:13 1994

17. From: W. Curtiss Priest <BMSLIB@MITVMA.MIT.EDU>

18. From: Lew McDaniel <MCDANIEL@wvuadmin3.csc.wvu.edu>
    Organization: WVU Computing Services
    Date: Mon, 14 Nov 1994 14:55:34 EST
    Subject: Re: [REDEFUS:15] Pilot Projects
    Message-ID: <3A45E1049AE@wvuadmin3.csc.wvu.edu>

19. From: Chris Silker <silke001@maroon.tc.umn.edu>

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*The NTIA Virtual Archives are available via the World Wide Web at http://ntiaunix2.ntia.doc.gov:70/11s/virtual

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Chapter 12
"Imminent Death of the Net Predicted!"

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> "The organization of the agricultural industry could not at that period make any marked progress, for the direction of its operations was still in the hands of the feudal class, which could not in general really learn the habits of industrial life, or place itself in sufficient harmony with the workers on its domains. The industry of the towns had to proceed that of the country, and the latter had developed mainly by the action of the former."
> John Kelly Ingram, A History of Political Economy

In his work, Political Arithmetic, Sir William Petty, who has been called the Father of the Science of Economics, explains that a careful examination of the public interest is needed. Without such he proposes that it is easy to be immobilized because of an inaccurate assessment of the situation. What is the public interest in the current battle over the Net?

In the past three decades a computer user's network has grown up and expanded, connecting computer users around the world. How has this been achieved? What are the lessons that can be learned from these developments?

The creation of time-sharing and interactive computing was supported by U.S. government funding of Project MAC at MIT, and other time-sharing projects around the U.S. like Project GENIE at the University of California at Berkeley. Similarly, the development and growth of the ARPANET and then the NSFNet which made the Internet possible, were funded by public monies.

Usenet, on the other hand, was developed by graduate students and researchers at universities, government and industrial sites. Some of these sites were supported by government grants, including key sites like ucbvax. Users at all sites, however, were obligated to make the Usenet available to others free of charge in exchange for their news feed.

Usenet and the Internet have thus grown and flourished as the result of research in computer automation and software development. They demonstrate that an open, cooperative, experimental environment where participants support and help each other, and an environment free from market pressures, commercial time constraints, and 'bottom line' considerations, can produce an invaluable public and social communications resource.

The development of the Net was the result of the work of many computer pioneers from the academic and government and research sectors working cooperatively to produce a significant public resource. The creation and expansion of the global network shows that the conditions under which network development occurs, greatly affects whether such develop will be encouraged or impeded.

On September 15, 1994, the U.S. government announced a plan to privatize the NSFNet backbone to the Internet. The plan, the National Information Infrastructure Agenda for Action (NII), proposed to privatize the public NSF backbone and put network development into private hands subject to so called "market forces", thereby subordinating an advanced sector of the U.S. economy to a more backward sector. The NII report contained no examination of the great achievements

represented by the three decades of networking developments. Nor did it analyze the factors that made this achievement possible.

The plan to privatize the Internet was agreed upon several years earlier at a private meeting. This meeting, described in the document "Commercialization of the Internet: Summary Report" was held March 1-3, 1990 at Harvard University in Cambridge, Massachusetts by the "Science, Technology, and Public Policy Program" of the John F. Kennedy School of Government.[1] Attendance at the workshop was by invitation only. Listed participants included representatives from the U.S. Congressional Office of Technology Assessment, the RAND Corporation, Brookings Institute, DARPA, MERIT, AT&T, MCI, AMERITECH, EDUCOM, Sprint International, Research Libraries Group, U.S. Department of Commerce's National Telecommunications and Information Administration, State of Ohio, IBM, Litel Telecommunications, Corporation for National Research Initiatives, Performance Systems International, UUNET, Digital Equipment Corporation, and the National Science Foundation.

The workshop took as its mandate to change the role of the U.S. Government in network development. The Summary Report quotes the Program Plan of the NREN proposing that "the networks of Stages 2 and 3 will be implemented and operated so that they can become commercialized…."[3] It proposes that "a specific, structured process" be set in place "resulting in transition of the network from a government operation to a commercial service."[4]

The Summary Report describes how Stephen Wolff of the NSF outlined the acceptable use policy (AUP) that had been governing the NSFNet. He explained: "Under the draft acceptable use policy in effect from 1988 to mid-1990, use of the NSFNet backbone had to support the purpose of 'scientific research and other scholarly activities.' The interim policy promulgated in June 1990 is the same, except that the purpose of the NSFNET is now 'to support research and education in and among academic institutions in the U.S. by access to unique resources and the opportunity for collaborative work'."

Wolff outlined the distinction between commercialization and privatization of the NSFNet. The distinction he made is that "commercialization" is "permitting commercial users and providers to access and use Internet facilities and services," while "privatization" is "the elimination of the federal role in providing or subsidizing network services."

The Report claimed that despite the restrictions on commercial usage of the NSFNet, commercial usage was increasing 15-20% a month. The problem Wolff explained was that such commercial use of the NSF backbone might be offering unfair competition from the U.S. Government to "private providers of network services (notably the public X.25 packet-switched networks, such as SprintNet and Tymnet)."

Wolff gave no legal basis for his concern to avoid such so called 'government competition with commercial providers.' However, such an argument would effectively eliminate all government services to the public since each might be then attacked as competing with their commercial counterparts, e.g., no social security insurance as that might compete with commercial insurance, no public schools as they compete with private schools, no post office as that competes with commercial mail or package delivery, etc. Such an argument eliminates the historic obligation of government to provide for the health and welfare of the people.

There is no other reason offered in this Summary Report for abolishing the government role in sponsoring and supporting the NSFNet backbone to the Internet. To the contrary, the participants

recognized that it is cheaper and more efficient for the U.S. government to fund the U.S. portion of the backbone than to have to figure out other means of funding government supported users as "it is easier for NSF to simply provide one free backbone to all comers rather than deal with 25 midlevel networks, 500 universities, or perhaps tens or hundreds of thousands of individual researchers," explained Wolff.

Also, the Summary Report acknowledged that privately owned and funded TCP/IC companies would not be concerned with network development but with their bottom line profits. The Report explains: "The market-driven suppliers of TCP/IP-based Internet connectivity are naturally going after those markets that can be wired at a low cost per institution, i.e., large metropolitan areas, especially those with a high concentration of R&D facilities, such as Boston, San Francisco, and Washington, D.C. And that in the voice environment, this kind of targeted marketing by unregulated companies is widely recognized as cream-skimming." Thus market driven access is contrary to the development of a network, where all areas need to be connected, or the whole net is harmed.

The Summary Report also acknowledged that since there was unmetered access to the NSFNet, academic institutions would make access available across disciplines, but once the network was metered, access would be restricted.

The Summary Report explained that in an academic network, all benefit from each other's contributions as "all networks benefit from access to each other's users and resources," while commercial entities often use the network's resources, but contribute much less to the network: "for example, because of the mailing lists available without charge on the Internet, three times as much traffic runs over the mail gateway from the Internet to MCI MAIL than to the Internet. This pattern is reinforced by the send-pays fee structure of MCI MAIL, which discourages mailing list distribution from within MCI MAIL," explained Wolff.

The Summary Report described MERIT, part of Michigan's public higher education system, and the State of Michigan Strategic Fund that provided $5 million to the NSFNet. The Report called MERIT and the State of Michigan "private entrepreneurs in the national operation of a backbone service." The problem with such an analysis is that MERIT and the State of Michigan Strategic Fund are public entities that cannot be private entrepreneurs.

The Summary Report demonstrated that dissenting opinions were not allowed.

Instead, the Harvard meeting encouraged the participants, many of whom subsequently became participants on the com-priv@psi.com mailing list, to vigorously promote this significant change of direction of the NSFNet, with no public discussion or examination of the virtues or harm to come from such a major change of public policy. And many on the compriv@psi.com mailing list would ridicule or wage personal attacks on anyone who expressed opposition to commercialization and privatization of the NSFNet.

Shortly after the March 1990 Harvard workshop, there were abrupt changes in the contracts between MERIT and the NSF. Reviewing these changes, the Office of the Inspector General, (OIG) for the NSF in a report issued on March 23, 1993, explained: "In April 1990 MERIT submitted a revised statement of work based on the input received from the National Science Foundation, in particular the need for adding nodes to and expanding the switching and transmission capacity for the NSFNet backbone." (Page 11 from "Revised Statement of Work/NSF Supplemental Proposal No 8944037", April 20, 1990.)

Then on May 29, 1990 an amendment to the cooperative proposal that MERIT had with the

NSF provided MERIT with funding for the revision. A significant change in the nature and oversight of the NSFNet then followed, as documented by the Inspector General's report, carrying out steps toward the transition to commercialization and privatization of the NSFNet.

The NSF transferred MERIT's responsibilities to the Advanced Network & Services, Inc., (ANS, made up of a public entity, MERIT, and private entities, IBM and MCI) and agreed that ANS should seek commercial users for what was previously a network restricted to academic, government, or industry research and scientific use as defined by the Acceptable Use Policy of the NSF and the goals of the NSF.

After several articles by reporter Brock Meeks were published in Communications Daily (on February 4, 1992, February 6, 1992, and February 21, 1992), Congressional Rep. Rick Boucher (D-Va) held a Congressional hearing on March 12, 1992 of the House Subcommittee on Science, Research and Technology to examine serious irregularities in the administration and oversight of the NSFNet by the National Science Foundation. After the hearing, the U.S. Inspector General for the NSF was asked to conduct an investigation into the unresolved questions. While the investigation was ongoing, Congressman Boucher's Committee changed the law regulating the obligations of the NSF rather than waiting for the report and recommendations of the Inspector General's Office, thereby undermining the very oversight process Congress had set in motion.

When the OIG Report examined how this substantial change in policy had come about, it merely noted that there was a lack of a "reasoned" documentation in NSF files providing for such a significant change of policy. Though the OIG admitted that the U.S. government had an obligation to hear discussion on such significant changes in policy, the OIG claimed that it is in the NSF's discretion as to whether it does so or not. The AUP governing the use of the NSFNet continued in effect after the NFS Inspector General's Report, but U.S. government officials no longer enforced it.

The AUP was derived from the authority vested in the NSF under the "National Science Foundation Act of 1950, as amended." According to the OIG Report, under this act, the NSF was given the authority "to foster and support the development and use of computer and other scientific and engineering methods and technologies, primarily for research and education in the sciences and engineering."(42 U.S.C. S 1862(a)(4).)

The report explained that in 1989, the NSF drafted an "Acceptable Use Policy (AUP) to define research and education traffic that may properly be conveyed under Section 4(a) of the NSF Act." And "in March 1992, NSF's Office of General Council concluded that 'some form of acceptable use policy' will continue to be necessary to ensure that NSF funds are used to further the objections of section 3(a)(4) of the Act."

Following is the Acceptable Usenet Policy (AUP), that governed NSF networking developments. These principles provide helpful guidelines for how to build and expand a public computer network. The AUP states:

"GENERAL PRINCIPLE:

(1) NSFNet Backbone services are provided to support open research and education in and among U.S. research and instructional institutions, plus research arms of for-profit firms when engaged in open scholarly communication and research. Use for other purposes is not acceptable.

SPECIFICALLY ACCEPTABLE USES:

(2) Communication with foreign researchers and educators in connection with research or instruction, as long as any network that the foreign user employs for such communication provides reciprocal access to U.S. researchers and educators.

(3) Communication and exchange for professional development, to maintain currency, or to debate issues in a field or subfield of knowledge.

(4) Use for disciplinary-society, university-association, government advisory, or standards activities related to the user's research and instructional activities.

(5) Use in applying for or administering grants or contracts for research or instruction, but not for other fund-raising or public relations activities.

(6) Any other administrative communications or activities in direct support of research and instruction.

(7) Announcements of new products or activities in direct support of research and instruction, but not advertising of any kind.

(8) Any traffic originating from a network of another member agency of the Federal Networking Council if the traffic meets the acceptable use policy of that agency.

(9) Communication incidental to otherwise acceptable use, except for illegal or specifically unacceptable use.

UNACCEPTABLE USES

(10) Use for for-profit activities unless covered by the General Principle or as a specifically acceptable use.

(11) Extensive use for private or personal business.

This statement applies to use of the NSFNet Backbone only. NSF expects that connecting networks will formulate their own use policies. The NSF Division of the Networking and Communications Research and Infrastructure will resolve any questions about this Policy or its interpretation."[2]

The development and growth of the ARPANET and then the NSF backbone of the U.S. portion of the Internet have been financed by public funds and networking developments were guided and nourished by an Acceptable Use Policy (AUP), that governed those funds.

The AUP required that the research carried out via the Net be open and available to others.

"The Review of the NSFNet" from the Office of the Inspector General of the NSF which was

issued in April 1993, demonstrated the problems which occur when private entities are charged with oversight of a public network. Inevitable conflicts of interest develop. The thrust of privatizing the public backbone to the U.S. portion of the Internet which is outlined in the NII Agenda for Action is to encourage conflict of interest and proprietary profit making purposes in place of further expansion of the Net for the public benefit.

The Net has grown up in public hands, in a scientific and research environment. The educational and cooperative principles embodied in the AUP are important principles. The Net flourished under the Acceptable Use Policy that guided networking developments. It put the development of the Net into the hands of the public, educational and scientific sectors of society. These are sectors that need communication and are able to work openly and cooperatively to create public resources. The AUP needed to be strengthened, as the recommendations from the Inspector General's report on the NSFNet recommended, not removed. The lesson from the development of the Net is that there is a need to expand access to the Net by making available free or very low cost access to more of the public.

To determine the best path forward for the Net, what is needed is a public process with online access and oversight by the online community. The NTIA online conference in November, 1994, provides a prototype of the kind of public process that is needed. However, the NII Agenda for Action does not provide for such a public process to determine the future of the Net. Instead it has created a small committee of private commercial interests to make recommendations for how to turn the public Net over to the private sector. No mechanisms of online participation, discussion or oversight have been provided to oversee the actions of this committee.

What is needed is a public process with on-line access by the networking community so any committee proposing public policy recommendations about the future of the Net can appropriately be open to comments, contributions and debate over what the problems are that further network development has to solve. Increasing vigilance and action are needed if the Net and the resources created cooperatively for the Net are to continue to expand and flourish. The NII Agenda for Action has predicted the death of the scientific, research, and education network, proposing to subsume it into a privately owned and operated so called "infrastructure" to serve business. Many times before the death of the Net has been predicted. In the past, those who care about the Net have taken such challenges seriously and have taken up to deal with the problems, thus defending and protecting the Net and the cooperative resources and culture that are the "Soul of the Net". The article "Computer Users Battle High-Tech Marketers Over Soul of the Internet" appearing in the *Wall Street Journal* the day after the NII Agenda for Action was announced, documented how the battle continues.[5]

"Imminent death of the net predicted. Films at 11:00." :-)

Notes for Chapter 12

1. According to the Report of the Office of Inspector General Report.

2. This account is in the OBI available at the world.com via ftp. There is also an account of the same meeting in B. Kahin, "Commercialization of the Internet: Summary Report", Internet Request for Comment 1192, November, 1990.

3. Federal Research Internet Coordinating Committee, "Program Plan for the National Research and Education Network," May 23, 1989, pp. 4-5.

4. From Office of Science and Technology Policy, “The Federal High Performance Computing Program,” September 8, 1989, pp. 32 & 35.

5. Steve Stecklow, “Computer Users Battle High-Tech Marketers Over Soul of Internet”, *Wall Street Journal*, September 16, 1993, p. 1.

Chapter 13
The Effect of the Net on the Professional News Media: The Usenet News Collective - The Man-Computer News Symbiosis

by Michael Hauben

> "The archdeacon contemplated the gigantic cathedral for a time in silence, then he sighed and stretched out his right hand towards the printed book lying open on his table and his left hand towards Notre-Dame, and he looked sadly from the book to the church: 'Alas,' he said, 'this will kill that'…. This was the presentiment that as human ideas changed their form they would change their mode of expression, that the crucial idea of each generation would no longer be written in the same material or in the same way, that the book of stone, so solid and durable, would give way to the book of paper, which was more solid and durable still."
>
> (Victor Hugo, Notre Dame de Paris)

I. Media-criticism

Will this kill that? Will the new on-line forms of discourse dethrone the professional news media?

The French writer Victor Hugo observed that the printed book rose to replace the cathedral and the church as the conveyor of important ideas in the fifteenth century. Will Usenet and other young on-line discussion forums develop to replace the current news media? Various people throughout society are currently discussing this question.

The role of modern journalism is being reconsidered in a variety of ways. There are journalists and media critics like the late Professor Christopher Lasch, who have challenged the fundamental premises of professional journalism. There are other journalists like *Wall Street Journal* reporter Jared Sandberg, who cover an on-line beat, and are learning quickly about the growing on-line public forums. These two approaches are beginning to converge to make it possible to understand the changes in the role of the media in our society brought about by the development of the Internet and Usenet.

Media critics like Christopher Lasch have established a theoretical foundation which makes it possible to critique the news media and challenge the current practice of this media. In "Journalism, Publicity, and the Lost Art of Argument", Lasch argued: "What democracy requires is public debate, and not information. Of course, it needs information, too, but the kind of information it needs can be generated only by vigorous popular debate."[1] Applying his critique to the press, Lasch wrote: "From these considerations it follows the job of the press is to encourage debate, not to supply the public with information. But as things now stand the press generates information in abundance, and nobody pays any attention."[2] Lasch explained that more and more people are getting less and less interested in the press because, "Much of the press…now delivers an abundance of useless, indigestible information that nobody wants, most of which ends up as unread waste."[3]

Reporters like Jared Sandberg of the *Wall Street Journal*, on the other hand, recognize that

more and more of the information which the public is interested in, is starting to come from people other than professional journalists. In an article about the April 1995 Oklahoma Federal building explosion, Sandberg writes: "In times of crisis, the Internet has become the medium of choice for users to learn more about breaking news, often faster than many news organizations can deliver it."[4]

People curious and concerned about relatives and others present on the scene turned to the Net to find out timely information about survivors and to discuss the questions raised by the event. Soon after the explosion, it was reported and discussed live on IRC and in newsgroups on Usenet such as alt.current-events.amfb-explosion and elsewhere on-line. Sandberg noted that many logged onto the Internet to get news from first-hand observers rather than turning on the TV to CNN or comparable news sources.

Along with the broader strata of the population which has begun to report and discuss the news via the Internet and Usenet, a broader definition of who is a media critic is developing. Journalists and media critics like Martha Fitzsimon and Lawrence T. McGill present such a broader definition of media critics when they write, "Everyone who watches television, listens to a radio or reads…passes judgment on what they see, hear or read."[5] Acknowledging the public's discontent with the traditional forms of the media, they note that, "the evaluations of the media put forward by the public are grim and getting worse."[6]

Other journalists have written about public criticism of the news media. In his article, "Encounters On-Line", Thomas Valovic recognizes some of the advantages inherent in the new on-line form of criticism. Unlike old criticism, the new type "fosters dialogue between reporters and readers."[7] He observes how this dialogue "can subject reporters to interrogations by experts that undermine journalists' claim to speak with authority."[8]

Changes are taking place in the field of journalism, and these changes are apparent to some, but not all journalists and media critics. Tom Goldstein, Dean of University of California Berkeley Journalism School observes that change is occurring, but the results are not fully understood.[9]

II. Examining the role of Internet/Usenet and the Press

There are discussions on-line about the role of the press and the role of on-line discussion forums. The debate is active, and there are those who believe the print press is here to stay, while others contend that interactive discussion forums are likely to replace the authority of the print news media. Those who argue for the dominance of the on-line media present impassioned arguments. Their comments are much more persuasive than those who defend the traditional role of the print media as something that is handy to read over breakfast or on the train. In a newsgroup thread discussing the future of print journalism, Gloria Stern stated: "My experience is that I have garnered more information from the internet than I ever could from any newspaper. Topical or not, it has given me community that I never had before. I touch base with more informed kindred souls than any tonnage of paper could ever bring me."[10]

Regularly, people are commenting on how they have stopped reading newspapers. Even those who continue to read printed newspapers, note that Usenet has become one of the important sources for their news. For example, a user wrote: "I _do_ get the *NYT* every day, and the *Post* and the *Washington Times* and the *Wall Street Journal* (along with about 100 other hardcopy publications), and I _still_ find Usenet a valuable source of in-depth news reporting."[11]

More and more people on Usenet have announced their discontent with the traditional

one-way media, often leading to their refusal to seriously read newspapers again. In a discussion about a *Time* magazine article about the Internet and Usenet, Elizabeth Fischer wrote: "The point of the whole exercise is that for us, most of us, paper media is a dead issue (so to speak)."[12] In the same thread, Jim Zoes stated the challenge posed by the on-line media for reporters: "This writer believes that you (the traditional press) face the same challenge that the monks in the monastery faced when Gutenberg started printing Bibles."[13] Describing why the new media represents such a formidable foe Zoes continued: "Your top-down model of journalism allows traditional media to control the debate, and even if you provide opportunity for opposing views, the editor *always* had the last word. In the new paradigm, not only do you not necessarily have the last word, you no longer even control the flow of the debate."[14] He concludes with his understanding of the value of Usenet to society: "The growth and acceptance of e-mail, coupled with discussion groups (Usenet) and mail lists provide for a 'market place of ideas' hitherto not possible since perhaps the days of the classic Athenians."[15]

Others present their views on a more personal level. One poster writes: "I will not purchase another issue of *Newsweek*. I won't even glance through their magazine if it's lying around now given what a shoddy job they did on that article."[16] Another explains: "My husband brought [the article] home…for me to read and [I] said, 'Where is that damn followup key? ARGH!' I've pretty much quit reading mainstream media except when someone puts something in front of me or I'm riding the bus to work…."[17]

These responses are just some of the recent examples of people voicing their discontent with the professional news media. The on-line forum provides a public way of sharing this discontent with others. It is in sharing ideas and understandings with others with similar views that grassroots efforts begin to attempt to change society.

While some netusers have stopped reading the professional news media, others are interested in influencing the media to more accurately portray the Net. Many are critical of the news media's reporting of the Internet, and other events. Users of the Internet are interested in protecting the Internet. They do this by watchdogging politicians and journalists. Concern with the coverage of the Internet in the press comes from first-hand experience with the Internet. One netuser expressing such dissatisfaction writes: "The net is a special problem for reporters, because bad reporting in other areas is protected by distance. If someone reports to the *Times* from Croatia, you're not going to have a better source unless you've been there (imagine how many people in that part of the world could correct the reports we read). All points of Usenet are equidistant from the user and the reporter – we can check their accuracy at every move. And what do we notice? Not the parts that the reporter gets right, just the errors. And Usenet is such a complete culture that no reporter, absent some form of formal training or total immersion in the net, is going to get it all right."[18] Another on-line critic writes: "It's scary when you actually are familiar with what a journalist is writing about. Kinda punches a whole bunch of holes in the 'facts'. Unfortunately it's been going on for a looooooong time…we, the general viewing public, just aren't up to speed on the majority of issues. That whole 'faith in media' thing. Yick. I can't even trust the damn AP wire anymore after reading an enormous amount of total crap on it during the first few hours of the Oklahoma bombing."[19]

In Usenet's formation of a community, that community has developed the self-awareness to respond to and reject an outside description of the Net. If the Net was just the telephone line and computer infrastructure making up a machine, that very machine couldn't object and scold

journalists for describing it as a pornography press or a bomb-production press. Wesley Howard believes that the critical on-line commentary is having a healthy effect on the press: "The coverage has become more accurate and less sloppy in its coverage of the Net because it (the Net) has become more defined itself from a cultural point of view. Partly because of growth and partly because of what the media was saying fed debates and caused a firmer definition within itself.… This does not mean the print media was in any way responsible for the Net's self definition, but was one influence of many."[20]

Another person, writing from Japan, believed that journalists should be more responsible, urging that "all journalists should be forced to have an e-mail address." He explained: "Journalists usually have a much bigger audience than their critics. I often feel a sense of helplessness in trying to counter the damage they cause when they abuse their privilege. Often it is impossible even to get the attention of the persons responsible for the lies and distortions."[21]

Usenet newsgroups and mailing lists provide a media where people are in control. People who are on-line understand the value of this control and are trying to articulate their understandings. Some of this discussion is being carried on on Usenet. Having the ability to control a mass media, also encourages people to try and affect other media. The proposal to require print journalists to make available an e-mail address is an example of how on-line users are trying to apply the lessons learned from the on-line media to change the print media.

III. People as Critics: The Role the Net is Playing and Will Play in the Future:

People on-line are excited, and this is not an exaggeration. The various discussion forums connected to the global computer communications network (or the Net) are the prototype for a new public form of communication. This new form of human communication will either supplement the current forms of News or replace them. One person on a newsgroup succinctly stated: "The real news is right here. And it can't get any newer because I watch it as it happens."[22] The very concept of news is being reinvented as people come to realize that they can provide the news about the environment they live in; that people can contribute their real-life conditions and this information proves worthwhile for others. The post continued: "As other segments of society come on-line, we will have less and less need for some commercially driven entity that gathers the news for me, filters it, and then delivers it to me, hoping fervently that I'll find enough of interest to keep paying for it."[23] Such sentiment represents a fundamental challenge to the professional creation and dissemination of news. The on-line discussion forums allow open and free discourse. Individuals outside of the traditional power structures are finding a forum in which to contribute, where those contributions are welcomed. Describing the importance of the open forum available on the Net, Dolores Dege wrote: "The most important and eventually most powerful aspect of the net will be the effect(s) of having access to alternative viewpoints to the published and usually (although not always either intentionally or consciously) biased local news media. This access to differing 'truths' is similar to the communication revolution which occurred when the first printing presses made knowledge available to the common populace, instead of held in the tight fists of the clergy and ruling classes."[24] This change in who makes the news is also apparent to Keith Cowing: "How one becomes a 'provider' and 'receiver' of information is being totally revamped. The status quo hasn't quite noticed – yet – THIS is what is so interesting."[25]

While this openness also encourages different conspiracy theorists and crack-pots to write messages, their contributions are scrutinized as much as any other posting. This uncensored environment leads to a sorting out of mis-truths from thoughtful convictions. Many people on-line keep their wits about them, and seek to refute half-truths and lies. A post from Australia notes that it is common to post refutations of inaccurate posts: "One of the good things about Usenet is the propensity of people to post refutations of false information that others have posted."[26]

As the on-line media is in the control of many people, no one person can come on-line and drastically alter the flow or quality of discussion. The multiplicity of ideas and opinions make Usenet and mailing lists the opposite of a free-for-all.

IV. Qualities of this new medium

A common assumption of the ethic of individualism is that the individual is in control and is the prime mover of society. Others believe that it's not the individual who is in control, but that society is being controlled by people organized around the various large corporations that own so much of our society – whether those corporations are the media, manufacturers, etc. The global computer communications networks currently allow uncensored expression from the individual at a bottom rung of society. The grass-roots connection of people around the world and in local communities based on common interests is an important step in bringing people more control over their lives. Lisa Pease wrote in alt.journalism: "There is nothing like finding a group of people who share your same interests and background knowledge. Some of my interests I didn't know one person in a hundred that shared – and now I've met many. What makes it a community is ultimately in-person meetings."[27]

She continued on in her message to state why such connections and discussions are important: "The net…requires no permissions, no groveling to authority, no editors to deal with – no one basically to say 'no don't say that.' As a result – far more has been said here publicly than has probably been said in a hundred years about issues that really matter – political prisoners, democratic uprisings, exposure of disinformation – THIS is what makes the net more valuable than any other news source."[28]

Similar views are expressed by others about the power of the Internet to work in favor of people rather than commercial conglomerates: "The internet is our last hope for a medium that will enable individuals to combat the overpowering influence of the commercial media to shape public opinion, voter attitudes, select candidates, influence legislation, etc.…"[29]

People are beginning to be empowered by the open communications the on-line media provides. This empowerment is beginning to lead towards more active involvement by people in the societal issues they care about.

V. The Pentium Story

In discussions about the future of the on-line media, people have observed how Usenet makes it possible to challenge the privileges inherent in the traditional news media. John Pike started a thread describing the challenge the Net presents to the former content providers: "To me this is the really exciting opportunity for Usenet, namely that the professional content providers will be directly confronted with and by their audience. The prevailing info-structure privileges certain individuals by virtue of institutional affiliation. But cyberspace is a far more meritocractic environment – the free

exchange of ideas can take place regardless of institutional affiliation."[30]

Pike continues by arguing that on-line forums are becoming a place where "news" is both made and reported, and thus traditional sources are often scooped. He writes: "This has tremendously exciting possibilities for democratizing the info-structure, as the 'official' hardcopy implementations are increasingly lagging cyberspace in breaking news."[31]

An example of news being made on-line occurred when Intel, the computer chip manufacturer, was forced to recall faulty Pentium chips because of the on-line pressure and the effect of that pressure on computer manufacturers such as IBM and Gateway. These companies put pressure on Intel because people using Usenet discovered problems with the Pentium. The on-line discussion led to people becoming active and getting the manufacturers of their computers, and Intel to fix the problems.

In the article "On-Line Snits Fomenting Public Storms," *Wall Street Journal* reporters Bart Ziegler and Jared Sandberg, commented: "Some industry insiders say that had the Pentium flub occurred five years ago, before the Internet got hot and the media caught on, Intel might have escaped a public flogging and avoided a costly recall."[32]

Buried in the report is the acknowledgment that the traditional press would not have caught the defect in the pentium chip, but that the on-line media forced the traditional media to respond. The original reporting about the problem was done in the Usenet newsgroup comp.sys.intel and further on-line discussion took place in that newsgroup and other newsgroups and on Internet mailing-lists. The *Wall Street Journal* reporters recognized their debt to news that people were posting on-line to come up with a story which dealt with a major computer company and with the real world role that Usenet played.

In another article in the *Wall Street Journal*, reporter Fara Warner focused on the impact of the on-line news on Intel. "[Intel] offered consumers a promise of reliability and quality, and now that promise has been called into question," she writes quoting the CEO of a consulting firm.[33] The people who did this questioning were the users of the computers with the faulty chips. Communicating about the problem on-line, these users were able to have an impact not otherwise possible. Ziegler and Sandberg noted that the discussions were on-line rather than in "traditional public forums like trade journals, newspapers or the electronic media."[34] On-line users were able to work together to deal with a problem, instead of depending on other forums traditionally associated with reporting dissatisfaction with consumer goods. After all of the criticisms, Intel had to replace faulty chips in order to keep their reputation viable. The *Wall Street Journal*, *New York Times* and other newspapers and magazines played second fiddle to what was happening on-line. In their article, Ziegler and Sandberg quote Dean Tom Goldstein: "It's absolutely changing how journalism is practiced in ways that aren't fully developed."[35] These journalists acknowledge that the field of journalism is changing as a result of the existence of the on-line complaints. The on-line connection of people is forming a large and important social force.

As a community where news is made, reported and discussed, Usenet has been a hotbed of more than just technical developments. Other late breaking stories have included the Church of Scientology and the suppression of speech. An Australian reporter, John Hilvert, commented on the value of being on-line: "It [Usenet] can be a great source of leads about the mood of the Net. The recent GIF-Unisys-Compuserve row and the Intel Pentium bug are examples of USENET taking an activist and educative role."[36]

Nevertheless, Hilvert, warned about the authenticity of information available on-line: "However the risk is you can easily be spooked by stuff on the Net. Things have to be shaped, confirmed and tested off-line as well. One of the interesting side-effects of Usenet is that we have to work even harder to get a good story because, there is not much value-added in just summarizing a Usenet discussion."[37]

Though, it is hard to rely on any single piece of information, Usenet is not about ideas in a vacuum. Usenet is about discussion and discourse. Tom Kimball, in a Usenet post, writes about the value of a public Usenet discussion, "I have great respect for the usenet ideal of everyone having the chance to respond to the ideas of others and the resulting exchanges of information and clashes of ideas I think is of some value (despite the flame-war garbage that gets in the way)."[38]

The great number and range of the unedited posts on Usenet brings up the question of whether editors are needed to deal with the amount of information. Discussing the need to take time to deal with the growing amount of information, a post on alt.internet.media-coverage explained, "The difference being that for the first time in human history, the general populace has the ability to determine what it finds important, rather than relying on the whims of those who knew how to write, or controlled the printing presses. It means that we as individuals are going to have to deal with sifting through a lot of information on our own, but in the end I believe that we will all benefit from it."[39]

Such posts lead to the question of what is meant by the notion of the general populace and a popular press. The point is important as those who are on the Net make up but a small percentage of the total population of either the USA or the world. However, that on-line population of an estimated 27.5 million people[40] make up a significant body of people connecting to each other on-line. The fast rate of growth also makes one take note of the trends and developments. Defining what is meant by 'general populace and a popular press' the post continues: "By general populace, I mean those who can actually afford a computer, and a connection to the net, or have access to a public terminal. As computer prices go down, the amount of people who fit this description will increase. At any rate, comparing the 5-10 million people with Usenet access, to the handful who control the mass media shows that even in a nascent stage, Usenet is far more the 'people's voice' than any media conglomerate could ever be."[41]

The comments from the last two people lead to asking whether or not the new technologies are helping the human species to evolve or to deal with the ever increasing amount of information. Computer pioneers like Norbert Wiener, J. C. R. Licklider and John Kemeny discussed the need for man-computer symbiosis to help humans deal with the growing problems of our times.[42] The on-line discussion forums provide a new form of man-computer symbiosis. They are helpful intellectual exercises. It is healthy for society if all members think and make active use of their brains – and Usenet is conducive to thinking. It is not the answer to ask journalists to provide us with the answers, the objective truth of life. Even if someone's life is busy, what happens when they come to depend on the opinions and summaries of others as their own? Usenet is helping to create a mass community which works communally to aid the individual. Usenet works via the active involvement and thoughtful contributions of each user. The Usenet software facilitates the creation of a community whose thought processes can accumulate and benefit the entire community. The creation of the book, and the printed book helped to increase the speed of the accumulation of ideas. Usenet now speeds up that process to help accumulate the thoughts of the moment. The resulting discussion seen on

Usenet could not have been produced beforehand as the work of one individual. The bias or point of the view of any one individual is no longer presented as the whole truth.

Karl Krueger describes some of the value of Usenet in a posting to Usenet, "Over time, Usenetters get better at being parts of the Usenet matrix – because their *own* condensations support Usenet's, and this helps other users. In a way, Usenet is a 'meta-symbiont' with each user – the user is a part of Usenet and benefits Usenet (with a few exceptions…), and Usenet includes the user and benefits him/her."[43] Krueger points out how experienced Usenet users contribute to the Usenet community. He writes, "As time increases normally, the experienced Usenet user uses Usenet to make himself more knowledgeable and successful. Experienced users also contribute back to Usenet, primarily in the forms of conveying knowledge (answering questions, compiling FAQs), conveying experience (being part of the environment a newbie interacts with), and protecting Usenet (upholding responsible and non-destructive use, canceling potentially damaging spam, fighting 'newsgroup invasions', etc.)."[44]

As new users connect to Usenet, and learn from others, the Usenet Collective grows and becomes one person richer. Krueger continues: "Provided that all users are willing to spend the minimal amount of effort to gain some basic Usenet experience then they can be added to this loop. In Usenet, old users gain their benefits from other old users, while simultaneously bringing new users into the old-users group to gain benefits."[45] The collective body of people, assisted by the Usenet software, has grown larger than any individual newspaper. As people continue to connect to Usenet and other discussion forums, the collective global population will contribute back to the human community in this new form of news.

VI. Journalists and the Internet

Professional journalists are beginning to understand that the on-line discussion forums will change their field, though they may not fully understand what the changes will be. In posing the question: "What, if any, effect do Usenet News and mailing lists have on reporters and editors you are in contact with?", several journalists responded. Some stated that Usenet and mailing lists are valuable information and opinion gathering tools which also help them to get in touch with experts, while others are either timid about the new technology or did not want to bother with yet another reporting tool. Several of the reporters stated that they do not participate in any discussion forums per se, but rather lurk in these areas and contact posters by e-mail who they feel will have valuable information for a story. Their main concern was that they might waste time on-line trying to get information when there would only be a small amount of worthwhile material in a lot of waste. Lastly, one or two did not see any value in on-line discussion forums, and have stayed away from them after initial negative impressions.

These reporters were asked if they sensed any pressure to get Internet accounts or to connect to Usenet and mailing lists. Josh Quittner of *Time* Magazine said the pressure came from the publishing side, where publishers are looking for the development of new markets. John Verity of *Business Week* and Lorraine Goods of Time Interactive said editors are responding to interest about the Internet and want stories about it. Brock Meeks, an independent journalist, stated that the pressure comes from reporters such as himself who have been on-line for some time and have beaten other reporters to stories because of the power of on-line communications. Some reported that they understood that it was important to get on-line without knowing why. A few said there is no push

to go on-line.

Asked whether it is important to be on-line, some did not see it as necessary, given that they are already connected to those they consider to be experts in their respective field without being on-line. Others felt the speed of e-mail helped to gather timely information for the stories they were working on. Farhon Memon of the *New York Post* compared today's on-line forums to conferences because they make contacting experts much easier both in terms of time and place.

When asked about the best forms of reader feedback, a number of the journalists stated that letters to the editor and op-ed pages were helpful. One reporter noted that letters to the editor were not particularly heeded. E-mail was named as the next most important means for readers to send in commentary. Whether this commentary is listened to or not is another story. One reporter did suggest that the on-line criticism, correct or not, encourages journalists to do the best possible job.

When it came to the question of whether on-line discussion forums would ever replace newspapers, the journalists almost universally stated that each form has its own role to play. Quittner didn't think traditional journalists would evolve into on-line discussion leaders. Such a job might emerge, but not as an additional responsibility of the regular journalist. Maia Szalavitz responded: "The print media can't beat online stuff for interactivity; online stuff can't beat print journalism for organization, ease of portability and use at this point."[46] Goods offered a similar analysis: "An online news outfit can obviously do things that print cannot. However, there are certain things you can do with a newspaper that you can't do on a computer (like read it on the subway on the way to work, or in the bathroom). Just as TV did not replace radio, computers will not replace newspapers. I do think, however, that the introduction of new media will have an effect on traditional media. What those effects will be, however, I don't know."[47]

There is a growing trend of journalists coming on-line for various reasons. Coming on-line could mean one of several things. Some use the Net as a new information source, and some look for people to interview. Lastly, there are those who are actually joining the community or responding to their reading audience. A growing number of journalists are participating in such newsgroups as alt.internet.media-coverage, alt.journalism.criticism, alt.news-media, also in forums on some of the commercial on-line services and in on-line communities such as the Well, among other places.[48] Reporters are entering the discussion and both asking for people's suggestions on how to improve their coverage of the Internet and for remarks on their stories.

Newspapers and magazines are developing on-line counterparts of their print editions (e.g., *San Jose Mercury News*, *Business Week*) on commercial on-line services such as Prodigy and America On-Line, and are experimenting with new content differing from their print editions on the World Wide Web (WWW) (e.g., HotWired, Time On-Line, NandoNet). These on-line offerings sometimes provide another interface between journalists and readers. Message areas or public discussion boards are offered along with publicized e-mail addresses for e-mailing letters to the editor or particular journalists.[49]

VII. Conclusion

Newspapers and magazines are a convenient form for dealing with information transfer. People have grown accustomed to reading newspapers and magazines wherever and whenever they please. The growing dissatisfaction with the print media is more with the content than with the form. There is a significant criticism that the current print media does not allow for a dynamic response

or follow-up to the articles in hand. One possible direction would be towards on-line distribution and home or on-site printing. This would allow for the convenience of the traditional newspaper and magazine form to be connected to the dynamic conversation that on-line Netnews allows. The reader could choose at what point in the conversation or how much of the discussion to make a part of the printed form. But this leaves out the element of interactivity. Still, it could be a temporary solution until the time when ubiquitous slate computers with mobile networks would allow the combination of a light, easy to handle screen, with a continuous connection into the Internet from anyplace.

Newspapers could continue to provide entertainment in the form of cross-word puzzles, comics, classified ads, and entertainment sections (e.g., entertainment, lifestyles, sports, fashion, gossip, reviews, coupons, and so on). However, the real challenge comes in what is traditionally known as news, or information and newly breaking events from around the world. Citizen, or now Netizen reporters are challenging the premise that authoritative professional reporters are the only possible reporters of the news. The news of the day is biased and opinionated no matter how many claims for objectivity exist in the world of the reporter. In addition, the choice of what becomes news is clearly subjective. Now that more people are gaining a voice on the open public electronic discussion forums, previously unheard "news" is being made available. The current professional news reporting is not really reporting the news, rather it is reporting the news as decided by a certain set of economic or political interests. Todd Masco contrasts the two contending forms of the news media, "Free communication is essential to the proper functioning of an open, free society such as ours. In recent years, the functioning of this society has been impaired by the monolithic control of our means of communication and news gathering (through television and conglomerate-owned newspapers). This monolithic control allows issues to be talked about only really in terms that only the people who control the media and access to same can frame…Usenet, and News in general, changes this: it allows real debate on issues, allowing perspectives from all sides to be seen."[50]

Journalists may survive, but they will be secondary to the symbiosis that the combination of the Usenet software and computers with the Usenet community produces. Karl Krueger observes how the Usenet Collective is evolving to join man and machine into a news gathering, sorting and disseminating body. He writes: "There is no need for Official Summarizers (aka journalists) on Usenet, because everyone does it – by cross-posting, following-up, forwarding relevant articles to other places, maintaining FTP archives and WWW indexes of Usenet articles (yes, FTP and WWW are Internet things, not Usenet things – but if Usenet articles are stored in them, the metaphor extends)."[51] He continues: "Journalists will never replace software. The purpose of journalists is similar to scribes in medieval times: to provide an information service when there is insufficient technology or insufficient general skill at using it. I'm not insulting journalism; it is a respectable profession and useful. But you won't *need* a journalist when you have a good enough news-reader/browser and know how to use it."[52]

These on-line commentators echo Victor Hugo's description of how the printed book grew up to replace the authority that architecture had held in earlier times. Hugo writes, "This was the presentiment that as human ideas changed their form they would change their mode of expression, that the crucial idea of each generation would no longer be written in the same material or in the same way, that the book of stone, so solid and durable, would give way to the book of paper, which was more solid and durable still."[53] Today, similarly, the need for a broader, and more cooperative gathering and reporting of the news has helped to create the new on-line media that is gradually

supplanting the traditional forms of journalism. Professional media critics writing in the Freedom Forum Media Studies Journal acknowledge that on-line critics and news gatherers are presenting a challenge to the professional news media that can lead to their overthrow when they write: "News organizations can weather the blasts of professional media critics, but their credibility cannot survive if they lose the trust of the multitude of citizens critics throughout the United States."[54]

As more and more people come on-line, and realize the grassroots power of becoming a Netizen reporter, the professional news media must evolve a new role or will be increasingly marginalized.

Notes for Chapter 13

1. Christopher Lasch, "Journalism, Publicity, and the Lost Art of Argument", *Media Studies Journal*, Vol. 9 no. 1, Winter 1995, p. 81.

2. Ibid.

3. Ibid., p. 91.

4. Jared Sandberg, "Oklahoma City Blast Turns Users Onto Internet for Facts, Some Fiction," *Wall Street Journal*, April 20, 1995, p. A6.

5. Martha Fitzsimon and Lawrence T. McGill, "The Citizen as Media Critic," *Media Studies Journal*, Vol. 9 no. 2, Spring 1995, p. 91.

6. Ibid.

7. Thomas S. Volovic, "Encounters On-Line," *Media Studies Journal*, Vol. 9 no. 2, Spring 1995, p. 115.

8. Ibid.

9. Bart Ziegler and Jared Sandberg, "On-Line Snits Fomenting Public Storms," *Wall Street Journal*, December 23, 1994.

10. From: Gloria Stern <af385@lafn.org>
Date: 7 April, 1995
Subject: Re: Future of print journalism
Newsgroups: alt.journalism
Message-ID:<1995Apr7.214157.11293@lafn.org>

11. From: John Pike <johnpike@clark.net>
Date: 24 April, 1995
Subject: Re: Usenet's political power (was Re: Content Providers – Professionals versus Amateurs on Usenet)
Newsgroups: alt.culture.usenet
Message-ID: <3ngntr$giu@clarknet.clark.net>

12. From: Elizabeth Fischer <efischer@wimsey.com>
Date: 20 July, 1994
Subject: Re: TIME Cover Story: pipeline to editors
Newsgroups: Alt.internet.media-coverage
Message-ID: <efischer-200794133211@pme16.pomo.wis.net>

13. From: Jim Zoes <mustang@mcs.com>
    Date: 22 July, 1994
    Subject: Re: TIME Cover Story: pipeline to editors
    Newsgroups: alt.internet.media-coverage
    Message-ID: <30nmf4$bgg@News1.mcs.com>

14. Ibid.

15. Ibid.

16. From: Catherine Stanton <cat@uunet.uu.net>
    Date: 21 July, 1994
    Subject: Re: TIME Cover Story: pipeline to editors
    Newsgroups: alt.internet.media-coverage
    Message-ID: <30ltmc$huu@rodan.UU.NET>

17. From: Abby Franquemont-Guillory <abbyfg@tezcat.com>
    Newsgroups: alt.internet.media-coverage
    Subject: Re: TIME Cover Story: pipeline to editors
    Date: 22 Jul 1994 13:45:19 -0500
    Message-ID: <30p43v$5o6@xochi.tezcat.com>

18. From: The Nutty Professor <flixman@news.dorsai.org>
    Subject: Re: Reporter Seeking Net-Abuse Comments
    Message-ID: <D2I33A.MtC@dorsai.org>
    Date: Mon, 16 Jan 1995 13:35:34 GMT
    Newsgroups: alt.internet.media-coverage

19. From: Mikez <mikez@cris.com>
    Newsgroups: alt.journalism.criticism
    Subject: Re: Mass media exploiting ‘cyberspace’ for ratings ...
    Date: Tue, 25 Apr 95 03:58:55 GMT
    Message-ID: <3nhs1v$cds_002@news.cris.com>

20. From: Wesley Howard <caspian@digital.net>
    Subject: Re: Does Usenet have an effect on the print news media?
    Date: 8 Apr 1995 05:39:43 GMT
    Newsgroups: alt.internet.media-coverage
    Message-ID: <3m57iv$m90@ddi2.digital.net>

21. From: John DeHoog <dehoog@st.rim.or.jp>
    Newsgroups: alt.journalism
    Subject: Make journalists get an email address!
    Date: Fri, 21 Apr 1995 20:01:24 +0900
    Message-ID: <ABBDBF94966820B78D@ppp017.st.rim.or.jp>

22. Message-Id: <elknox.35.00091823@bsu.idbsu.edu>

23. Ibid.

24. Delores Dege, "Re: Impact of the Net on Society," e-mail message, February 21, 1995.

25. From: Keith L. Cowing <kcowing@aibs.org>
Subject: Re: Content Providers – Professionals versus Amateurs on Usenet
Date: Mon, 17 Apr 1995 12:33:23 -0500
Newsgroups: alt.culture.internet
Message-ID: <kcowing-1704951233230001@168.143.0.239>

26. From: William Logan Lee <bill@extro.ucc.su.OZ.AU>
Newsgroups: alt.folklore.computers
Subject: Re: Is hobby computing dead? (was Creative
Message-ID: <1993Apr6.121613.16236@ucc.su.OZ.AU>

27. From: Lisa Pease <lpease@netcom.com>
Subject: Re: Future of print journalism
Newsgroups: alt.journalism
Message-ID: <lpeaseD6L4p0.2K0@netcom.com>
Date: Wed, 5 Apr 1995 23:17:24 GMT

28. Ibid.

29. From: Norman <normane814@aol.com>
Subject: Re: Impact of the Net on Society
Date: 20 Mar 1995 21:05:54 -0500
Newsgroups: alt.culture.internet
Message-ID: <3klca2$ma1@newsbf02.news.aol.com>

30. From: John Pike <johnpike@clark.net>
Subject: Content Providers -- Professionals versus Amateurs on Usenet
Date: 17 Apr 1995 12:21:49 GMT
Message-ID: <3mtmgt$56a@clarknet.clark.net>

31. Ibid.

32. Bart Ziegler and Jared Sandberg.

33. Fara Warner, "Experts Surprised Intel Isn't Reaching Out To Consumers More", *Wall Street Journal*, December 14, 1994.

34. Bart Ziegler and Jared Sandberg.

35. Ibid.

36. From: John Hilvert <hilvertj@ozemail.com.au>
Subject: Re: Does Usenet have an effect on the print news media?
Date: Wed, 5 Apr 1995 03:40:57 GMT
Newsgroups: alt.culture.usenet
Message-ID: <hilvertj.107.2F821149@ozemail.com.au>

37. Ibid.

.38 From: Tom Kimball <tom@europa.lonestar.org>
Subject: Usenet impact upon reading habits and skills
Date: Thu, 26 Aug 1993 02:25:28 GMT

Message-ID: <1993Aug26.022528.6376@europa.lonestar.org>

39. From: Miskatonic Gryn <miskat@iii1.iii.net>
Subject: Re: Cliff Stoll
Date: 17 Apr 1995 15:31:22 -0400
Newsgroups: alt.internet.media-coverage
Message-ID: <3mufmt$47n@iii1.iii.net>

40. The number of people accessible via e-mail was placed at 27.5 million as of October 1994 according to John Quarterman and MIDS at http://www.tic.com/mids/howbig.html

41. Miskatonic Gryn

42. See John Kemeny, Man and the Computer, J. C. R. Licklider, "Man Computer Symbiosis," Norbert Wiener, God & Golem, Inc.

43. From: Karl A. Krueger <karl@plato.simons-rock.edu>
Subject: Re: Special Issue of TIME: Welcome to Cyberspace
Message-ID: <D63CxL.DJv@plato.simons-rock.edu>
Date: Mon, 27 Mar 1995 08:58:33 GMT
Newsgroups: alt.internet.media-coverage

44. Ibid.

45. Ibid.

46. Maia Szalavitz, "Re: Questions about the effect of Usenet on journalism," e-mail message, April 18, 1995.

47. Goods, Lorraine. (1995, April 23) "Questions about the effect of Usenet on journalism" [e-mail to M. Hauben], [Online]. Available e-mail: lg105@columbia.edu

48. While I was writing this paper, there was a debate on-line over moving discussion from alt.internet.media-coverage into a new newsgroup tentatively called talk.media.net-coverage.

49. Jennifer Wolff wrote an interesting article entitled "Opening Up, OnLine: What Happens When the Public Comes At You From Cyberspace" in the Columbia Journalism Review, Nov/Dec 1994, pp. 62-65.

50. From: L. Todd Masco <cactus@clinton.com>
Newsgroups: news.future,comp.society.futures,ny.general
(No Subject Line)

51. Karl A. Krueger.

52. Ibid.

53. Victor Hugo, Notre Dame de Paris, translated by John Sturrock, Penguin Books, London, 1978, p. 189.

54. Fitzsimon and McGill, p. 201.

Chapter 14
The Net and the Future of Politics: The Ascendency of the Commons

by Michael Hauben

> "What democracy requires is public debate, and not information. Of course, it needs information, too, but the kind of information it needs can be generated only by vigorous popular debate. We do not know what we need to know until we ask the right questions, and we can identify the right questions only by subjecting our own ideas about the world to the test of public controversy…."
>
> (Christopher Lasch, "Journalism, Publicity, and the Lost Art of Argument," in *Media Studies Journal* Winter, 1995, Vol. 9 no. 1, p. 81)

> "Throughout American history, the town meeting has been the premier, and often the only, example of 'direct democracy'…. The issue of whether the town meeting can be redesigned to empower ordinary citizens, as it was intended to do, is of vital concern for the future."
>
> (Jeffrey B. Abramson, "Electronic Town Meetings: Proposals for Democracy's Future," Aspen Institute Communications and Society Program)

I. Introduction

Democracy, or rule by the people, is by definition a popular form of government. Writers throughout the ages have thought about democracy, and understood the limitations imposed by various factors. Today, computer communications networks, such as the Internet, are technical innovations which make moving towards a true participatory democracy more feasible.

James Mill, a political theorist from the early nineteenth century, and the father of philosopher John Stuart Mill, wrote about democracy in his 1825 essay on "Government" for that year's Supplement for the *Encyclopedia Britannica*. Mill argues that democracy is the only governmental form that is fair to the society as a whole. Although he does not trust representative government, he ends up advocating it. But he warns of its dangers, "Whenever the powers of Government are placed in any hands other than those of the community, whether those of one man, of a few, or of several, those principles of human nature which imply that Government is at all necessary, imply that those persons will make use of them to defeat the very end for which Government exists."[1]

Democracy is a desirable form of government, but Mill found it to be impossible to maintain. Mill lists two practical obstacles in his essay. First, he finds it impossible for the whole people to assemble to perform the duties of government. Citizens would have to leave their normal jobs on a regular basis to help govern the community. Second, Mill argues that an assembled body of differing interests would find it impossible to come to any agreements. Mill speaks to this point in his essay: "In an assembly, every thing must be done by speaking and assenting. But where the assembly is numerous, so many persons desire to speak, and feelings, by mutual inflammation, become so violent, that calm and effectual deliberation is impossible."[2]

In lieu of participatory democracies, republics have arisen as the actual form of government. Mill recognizes that an elected body of representatives serves to facilitate the role of governing society in the interests of the body politic. However, that representative body needs to be overseen so as to not abuse its powers. Mill writes: "That whether Government is entrusted to one or a few, they have not only motives opposite to those ends, but motives which will carry them, if unchecked, to inflict the greatest evils…."[3]

A more recent scholar, the late Professor Christopher Lasch of the University of Rochester, also had qualms about representative government. In his essay, "Journalism, Publicity, and the Lost Art of Argument"[4], Lasch argued that any form of democracy requires discourse and debate to function properly. His article is critical of modern journalism failing in its role as a public forum to help raise the needed questions of our society. Lasch recommended the recreation of direct democracy when he wrote, "Instead of dismissing direct democracy as irrelevant to modern conditions, we need to recreate it on a large scale. And from this point of view, the press serves as the equivalent of the town meeting."[5]

But even the traditional town meeting had its limitations. For example, everyone should be allowed to speak, as long as they share a common interest in the well-being of the whole community, rather than in any particular part. One scholar wrote that a "well-known study of a surviving small Vermont town meeting traces the breaking apart of the deliberative ideal once developers catering to tourism bought property in a farming community; the farmers and developers had such opposed interests about zoning ordnances that debate collapsed into angry shouting matches."[6]

The development of the Internet and of Usenet is an investment in a strong force towards making direct democracy a reality. These new technologies present the chance to overcome the obstacles preventing the implementation of direct democracy. Online communication forums also make possible Lasch's desire to see the discussion necessary to identify today's fundamental questions. Mill could not foresee the successful assembly of the body politic in person at one time. The Net allows for a meeting which takes place on each person's own time, rather than all at one time.[7] Usenet newsgroups are discussion forums where questions are raised, and people can leave comments when convenient, rather than at a particular time and at a particular place. As a computer discussion forum, individuals can connect from their own computers, or from publicly accessible computers across the nation to participate in a particular debate. The discussion takes place in one concrete time and place, while the discussants can be dispersed. Current Usenet newsgroups and mailing lists prove that citizens can both do their daily jobs and participate in discussions that interest them within their daily schedules.

Mill's second observation was that people would not be able to communicate peacefully after assembling. Online discussions do not have the same characteristics as in-person meetings. As people connect to the discussion forum when they wish, and when they have time, they can be thoughtful in their responses to the discussion. Whereas in a traditional meeting, participants have to think quickly to respond. In addition, online discussions allow everyone to have a say, whereas finite length meetings only allow a certain number of people to have their say. Online meetings allow everyone to contribute their thoughts in a message, which is then accessible to whomever else is reading and participating in the discussion.

These new communication technologies hold the potential for the implementation of direct democracy in a country as long as the necessary computer and communications infrastructure are

installed. Future advancement towards a more responsible government is possible with these new technologies. While the future is discussed and planned for, it will also be possible to use these technologies to assist in the citizen participation in government. Netizens are watching various government institutions on various newsgroups and mailing lists throughout the global computer communications network. People's thoughts about and criticisms of their respective governments are being aired on the currently uncensored networks.

These networks can revitalize the concept of a democratic "Town Meeting" via online communication and discussion. Discussions involve people interacting with others. Voting involves the isolated thoughts of an individual on an issue, and then his or her acting on those thoughts in a private vote. In society where people live together, it is important for people to communicate with each other about their situations to best understand the world from the broadest possible viewpoint.

Public and open discussions and debates are grass-roots, bottom-up development which enable people to participate in democracy with enthusiasm and interest more so than the current system of secret ballots allows. Of course, at some point or other, votes might be taken, but only after time has been given to air an issue in the commons.

II. The NTIA Virtual Conference

A recent example and prototype of this public and open discussion was the Virtual Conference on Universal Service and Open Access to the Telecommunications Network in late November 1994. The National Telecommunications and Information Administration (NTIA), a branch of the U.S. Department of Commerce sponsored this e-mail and newsgroup conference and encouraged public access sites to allow broad-based discussion. Several public libraries across the nation provided the most visible public sites in the archives of the conference. This NTIA online conference is an example of an online "town meeting." This prototype of what the technology facilitates also demonstrated some of the problems inherent in non-moderated computer communication. The NTIA conference was a new social form made possible by the Net and actually occurred as a prototype of one form of citizen online discussion. It demonstrated an example of citizen-government interaction through citizen debate over important public questions held in a public forum with the support of public institutions. This is a viable attempt to revitalize the democratic definition of government of and by the people. This particular two-week forum displayed the following points:

1. Public debate making it possible for previously unheard voices to be part of the discussion
2. A new form of politics involving the people in the real questions of society
3. The clarification of a public question
4. The testing of new technological means to make more democracy possible.

Following is a case study of the archives of this prototype conference, including some analysis for the future.

David J. Barram, the Deputy Secretary of the U.S. Department of Commerce, closed the National Telecommunications and Information Administration's (NTIA)[8] Virtual Conference on Universal and Service and Open Access by stating the conference was: "…a tremendous example of how our information infrastructure can allow greater citizen participation in the development of government policies." To hear such a comment from a government representative is important. Such

a statement indicates that many users of the Net have demonstrated to the U.S. government that they oppose the recent conversion of the communications-based Internet into the commerce-based National Information Infrastructure.

The goals of the two-week conference, were stated in the Welcoming Statement.[9] The Welcoming Statement promised to replace the one-way top down approach with a new form of dialogue among citizens and with their government.

Open discussion is powerful. Such exchange is more convincing then any propaganda. The forums on "Availability and Affordability" and "Redefining Universal Service and Open Access" demonstrated that the solution of the so-called "free market" is not a correct solution for the problem of spreading network access to all. Usually unheard voices spoke out loud and clear; there is a strong need for government to assure that online access is equally available to urban, rural, disabled or poor citizens and to everyone else. The government must step in to provide Net access in non-profitable situations that the so-called "free market" would not touch. Non-governmental and non-profit organizations along with community representatives, college students, normal everyday people and others, made this clear in their contributions to the discussion. Though the NTIA Virtual Conference was not advertised broadly enough, the organizers did establish 80 public access points across the U.S. in places like public libraries and community centers. This helped to include the opinions of people in the discussion who might not have been heard otherwise.

A. The Importance of the Internet to our Society

The Internet and Usenet represent important developments in technology which will have a profound effect on human society and intellectual development. We are in an early stage of the development and distribution of these technologies, and it is important to look towards the future. Some areas of human society which these new communications technologies are likely to affect include government, human communication and community formation. Democracy is government by the people, and both Usenet and mailing lists allow everyone to have speak out without the fear that their voices would not be heard. Individuals can still be uncooperative, but these new communications technologies make it possible to have one's voice presented equally. These technologies could be integrated with other online information and communication technologies to make possible a true participatory democracy. This potential excited several of the participants.

Many participants in the NTIA virtual conference recognized the value inherent in these new communication technologies and discussed the need for universal access to the technology. The Internet was identified to be a "public good," worthy and necessary to be accessible to all of the population and throughout the land. This led to the understanding that it was important to make access equal across all stations of society. Citizens living in rural areas, people with various handicaps, or of low-income should have equal opportunity with everyone else to access and utilize the Internet. These particular cases were described and explored as being unprofitable for businesses to provide equal access for equal payment. Businesses make profits off of the mass production of like goods or services. Parts of society which cannot use the common product wind up paying extra. This was seen as discriminatory by various participants. The problems described included the high prices involved with long distance phone rates which most rural inhabitants need to pay to communicate with most other people. These rates would have to be paid to connect to the closest Internet access phone number. Rural access would be costly, as would access from territories such

as the Virgin Islands. Another concern was the extra cost to those with hardships to gain access. People with handicaps would need to purchase expensive input/output devices in order to compensate for their individual disadvantage. Access is expensive, but so are computers and training. Participants felt it important to make access to Internet accounts and computers easily available.

The number of subscribers averaged about 400 people per conference. The conferences sponsored a debate on the issues, and people with different ideas contributed. However, there was a clear cry by many participants that the U.S. government should stay involved with the U.S. backbone of the Internet to best provide equal access and service to individuals throughout U.S. society. One of the arguments in favor of this understanding was that it was vital for people from all walks of life and all possible backgrounds to be using the Internet. Only if there is access for all can the Internet work as a medium of communication and discussion, including all the differences, and diversity of the population. A network only connecting a few types of individuals together would not benefit society. The question was raised by one participant whether we as a society could afford being split into two distinct societies – those online and those not.

Following are general comments taken from the archives of the NTIA Virtual Conference about the importance of the Internet to our society. Subsequent sections will focus on particular topics discussed during the conference.

1. The Benefits of the Net

From: Randolph Langley

I agree wholeheartedly – the Internet costs so little, and benefits so many. As with the interstate highway system, it is a proper and effective activity for the federal government. I believe most of the citizenry would not care to see the interstate system given over to a few large toll companies, and I believe the Internet will be on the scale of economic and cultural benefit as the interstate system.[12]

From: Bob Summers

In order for the nation to access a common pool of information, such as the library of congress, an efficient system must be in place to handle the load of thousands of library's and other users to access the information. Yes, I believe that there will have to be an outlay of funds to provide such a system, not to mention the cost of putting the information online. These funds must come from the Federal government, since it is for the public.[13]

From: W. Curtiss Priest

Government should supply/support activities where there are public goods (public information) and when the benefits of this support exceeds the cost to we taxpayers.[14]

From: Wayne County RESA

The Net is certainly not free, I agree. We all pay to a certain degree for it. I am a little concerned about the commercialism aspect of it, though. I think if it is privatized we will see more ads. Seems logical. Why would someone pay good money to be on the Net and not advertise their wares. I imagine it is inevitable but I would like the inevitable forestalled or better yet somehow

modified so that information and the kinds of information is not compromised.[15]

From: BNN Television

Public access is a 'public good', not only because it allows people from disadvantaged backgrounds the opportunity to use new technology, but also because it increases the collective pool of information from which even newer technology is born. Analyze this increase from a business perspective if you must – I'll keep on rooting for the future of my species.[16]

From: Brent Wall

The draft financial plan for the Leon County Free-Net project, while proposing a number of different financial opportunities to make universal service a reality to the community, will emphasize an old notion practiced for years in this and other countries: cross-subsidies. Based on the view that citizen communication and education are public goods and should not be constrained by cost of service pricing mechanisms, the financial plan proposes that business uses and enhanced services shall be charged a fee that underwrites the first Amendment communication functions of the Net as well as its educational employment.

This entire argument hinges on defining communication and education (and I recognize that there are grey areas that would need to be ironed out) as PUBLIC GOODS. This is not, in my judgement simply a matter of determining whether Net communication is "divisible" etc. as the economic profession would tend to analyze the problem. It deals with fundamental philosophies of the social value of education and communication in a democracy. If, to e-mail my County Commissioners on a topic that affects me, I have to pay a charge that I really can't afford, while Mr. Thickwallet has no such impediment, then this means something to democratic participation in an electronic world.

This is nothing new: witness C-Span, local access channels, and the like. If we adopt a concept and policy like the above, more and more citizens, over time, would be able to join the virtual community as a full member. To have this membership driven by one's personal income will surely result in two societies that are separate and unequal. Can we afford this future?[17]

From: Stephen Brenner

We are dealing with a major paradigm shift when it comes to this lateral flow of communication and the kinds of community building processes and empowerment that this can catalyze. We need to put some thought into how a real democracy could function, given these new communication tools.[18]

From: Lew McDaniel

In my opinion, information access is sufficiently important to be a guaranteed right. By guaranteed information access, I mean for K-12, adult education, health services, and government access. Movies on demand, games, and electronic shopping (ala the shopping channels) should be charged at an additional rate.[19]

From: Dave W. Mitchell

I agree that the knowledge base of a society and the ability of its citizens to use it will

determine the ultimate survival of free peoples.[20]

From: Daniel Lieberman

We are looking towards the future. Anyone who hopes to participate in the society will need to have access. Banking, schooling, books, its all coming very fast. Just think of the rate of change in the last five years or the last six months on the WWW. Voters handbooks, policy papers etc. How can one hope to be a knowledgeable citizen without access. The hardware will trickle down like automobiles. But the communication links must be available.[21]

From: Sean Connell

The Internet offers a chance for us to follow through on a promise of democracy that was betrayed over two hundred years ago. Our Constitution, clever as it may be, was written to *prevent* civic action. [Jefferson] was the first to recommend public education, because he knew that it was vital to a healthy democracy. We must all be informed and capable of contributing to the governing of our country. The public does not have the means to act in concert and it is not the interest of the current power players to afford us those means. The Internet…is a means to create vocal, active, communities that transcend race, geography, and wealth. It is entirely necessary that we recognize this fact and make a stand now to maintain this highway to real Democracy.[22]

From: Colette Brooks

And many of us feel that the Infobahn is not primarily a private preserve but a national/world resource which should be extended to all, for reasons already explored in other posts this week.[23]

From: Bill Russell

What SERVICES should be guaranteed to every citizen. The old definition of universal service has been called POTS: Plain Old Telephone Service. As I understand it, the NEED for this service was so great that it is public policy that every one (hence universal) should have it. It has been also called "life line service."

IMHO universal service needs to be defined as a set of SERVICES that are so important to our civilization that they should be made universally available. Foremost among them is POTS. Next is access to a network that provides at least an e-mail bridge to the worldwide Internet at an equitable price. It is just plain not fair for urban cybernauts to pay zero while rural cybernauts pay ten cents per minute for telephone connection to the net.[24]

2. The Cry for Equal Access and Universal Access

Following are some messages from the conference demonstrating concern that access to the Internet be available universally, with respect both to access and to price.

From: Brent Wall

An early post to this group from an individual from the Anneberg NPR group suggested that, as a beginning, universal access, as defined from the consumer's and not the supplier's viewpoint, merely entails, at present, a phone line to every home. The implicit definition of availability in the Leon County library Tallahassee Free-Net adds one important dimension on top of the phone line

notion. It is the expansion to as many homes as possible of the communication and educational benefits of a community Net over the phone lines.[25]

From: Harvey Goodstein

Taking into consideration the needs and rights of deaf and hard of hearing individuals in particular (and individuals with disabilities in general). That is, federal regulations on minimum standards are necessary to enhance equal access for all…. Thus, universal service provisions should not discriminate against individuals with disabilities (irrespective of their financial status) who invariably would have to pay abnormally high costs for technical connectivity.[26]

From: Ellen Davis Burnham

This whole segment of the conference is about "Availability and Affordability" to all NOT just some that live in a largely populated area. People in Mississippi NEED the Internet just like everyone, probably more so than people who live in large areas with ready access to libraries or any form of research. Should we teach just **SOME** of our children to read, maybe just a few should learn Algebra, and heaven knows no one needs to know grammar rules. We can't pick and choose who is allowed access we live in a democratic society that says everyone is equal and should receive equal access to schooling among other inalienable rights.

The rural area should be addressed first because we have such a hard time to find access (affordable access). If you could just go into a school one day and help students who are struggling to find the needed 12 sources for a research paper, students who know what they need is out there SOMEWHERE if only they had access to it.

YES, WE MUST PROVIDE INTERNET ACCESS TO **EVERYONE**, not just to those who are easy to put on-line.

The competition may be greater in larger cities BUT the need is not. I don't mean to berate anyone but if you could only see first-hand the great need in our schools you would understand. I teach in a school that has only 3700 books total in the library. Our situation is extreme because the school burned a couple of years ago. I try to help the students by hunting for needed items on the Internet. Until I began teaching there this year *ONLY* one student knew about the Superhighway. What about…the children who have parents that have never heard of the Internet either. We have to start somewhere and I believe the population of America as a whole is as good a place to begin as any.[27]

From: Lucy Co

Hearing the real-life experiences of people like Ellen Davis Burnham, who wrote of introducing school children in rural Mississippi to the Internet – is one of the best aspects of this conference. Helps ward off the tendency to discuss concepts such as "availability" as though they were theoretical only. Keep up the good work, Ellen – and don't apologize for your "preaching."[28]

B. Government as Producer and Disseminator of Information

The U.S. government is a major producer of information in American society, most of which is public and printed on paper. As a distributor of that information, the government would save money if it distributed it electronically and let the user decide whether or not to print that

information. Having handed over the Internet backbone to commercial entities, the U.S. government no longer has the capability of distributing that information without the increased cost of contributing to some companies' profit margins. A U.S. government-run backbone would have allowed the efficient distribution of governmental information without the increased cost profits requires. U.S. citizens will now have to pay a profit-making company overhead to access the very information we pay for with our taxes. In any case, if the U.S. government works towards providing governmental information and services online, more incentive will exist for more of the U.S. population to get connected to the Internet.

From: Carl Hage

Because the government would be the main beneficiaries of an *information* infrastructure. The government is a major producer and consumer of information, most of which is inaccessible to the public in practice.

Information without charge (other than low network charges). That means every public library, school, government office, business or home could have access to everything.[29]

From: Chloe Lewis

We might legislate that all public gov't information – stuff that The Public has already paid for and usually has a right to, if near enough a G-Doc depository – be made available to anyone with e-mail. This will, if done with common sense, reduce the expenses of both the government agencies involved and of anyone who needs frequent access to government publications. This is an obvious reason for schools and libraries to have Internet access, and a reason for citizens and businesses to acquire it.

The U.S. has been subsidizing access to paper information, for the sake of knowledge and self-government; we have found a more efficient way to provide this information; where possible, we should subsidize this more efficient way instead. It isn't as whizbang attractive as giving everyone realtime video, but it would be useful immediately.[30]

From: Carl Hage

The largest single producer of information is the federal government, most of which is public. Although these days virtually all documents are produced in electronic form on a word processor, etc., very little of the information is available in electronic form. Nearly all information is distributed in paper form, typically obtained by calling over a telephone. A similar case can be made for state and local governments.[31]

From: Susan Hadden

If the federal and state government would announce a policy of making their services available in electronic form there would be a package of stuff…that should make the net worthwhile to most people. (Examples: Renewing drivers' license, hunting licenses, finding the right official for your problem the first time, getting on-line help on your income tax where you didn't just talk to someone but showed them the calculations in real time, etc.)[32]

C. Necessary for Knowledge of Why This is All Important

Early in the "redefining universal service" segment of the virtual conference, people started discussing how to determine access rates. One participant, Bob Johnson, proposed the starting point is to figure out first why it was important for people to have Internet access. His point is important, and others echoed it throughout the conference. It is necessary to understand why it is important for both individuals and organizations in our society to have access to the Internet for both its information and communication benefits. Another participant, Carly Henderson, raised a parallel question asking why access to public libraries is important. Part of the debate taking place publicly was over a difference in views. One view was that the USA is a democracy where everyone is equal and should receive equal opportunities versus the understanding that the USA is a nation of individuals and access should only be for those who strive for it.

From: Bob Jacobson

An appropriate question is not how much a particular individual or organization should pay for access to the Internet or its successors, but why they should have access, individually and collectively? Once you figure this out, and define access to suit, you can figure on pricing. Everything else is premature, unless people get out their basic premises on which they are operating.[33]

From: Carly Henderson

I agree with Bob; this is a very important question that deserves a well thought out answer. Why should people have access to the Internet? In response, I pose the question, why should every community have a library and allow its citizens access to all that it contains?[34]

From: Robert J. Berrington III

But what I'm willing to bet is that most of the people that we're talking about providing a service to haven't the slightest clue as to what the Internet is.[35]

From: Martin Kessel

A final requirement for universal access is that people need to understand what the Information Highway can do for them – how it can benefit their lives.[36]

D. What the Internet Can Do for People

The significance of Internet access for all in society is not obvious because it is a new way to think about communication between people. Before the Internet and Usenet, most broadcast forms of communication were owned and operated by large companies. Other more democratic forms of broadcast which provide one-to-many communication exist for small segments of the population in particular regions: public access cable, various self-produced newsletters or zines, "pirate" radio and so on. The Internet makes available an alternative to the corporate owned mass media and allows a grass-roots communication from the many to the many. As it has taken a struggle for an individual to be seen as a information provider, it is not immediately obvious to all that it is possible to speak out and have your voice heard by many people. It is also important that people could express their views and be in contact with others around the world who are expressing their views. Participants

in the virtual conference were active in defining their interest in keeping the Internet protected from dominance by commercial interests. Commercial information and communication is vastly different from personal information and communication. Participants recognized this difference, and voiced their opinion on how it is important to keep the Net as an open channel for non-commercial voices.

The picture of the Internet painted by the U.S. government has been one of an "information superhighway" or "information infrastructure" where people could connect, download some data or purchase some goods and then disconnect. This vision is one that is very different from the current cooperative communications forums on Usenet where everyone can contribute. Even worse has been the description by much of the news media where people's contributions are misportrayed as pornography or otherwise vice-related, such as bomb production or drug-related. The important aspect of the Internet and Usenet is that they provide a place where people can share ideas, observations and questions. The transfer of information is secondary.

From: R. M.

Overlooked in the current free market vs. regulated access debate is any argument convincing me why the average American will want access to the net. Apart from the "information elite" (most already on the net), I don't know too many people interested in communications capability not already available using existing infrastructures. How many people do you know, not associated with research or education, who care about access to government information repositories? Or virtual conferences?[37]

From: Dr. Robert LaRose

In response to Woody Dowling's comment that the average American is not interested in advanced communications infrastructure, at least not those who don't already have it. Not so. We did a national survey a couple of years ago and asked about interest in videotex, ISDN, etc., found interest levels far beyond those of then-current penetration levels. Found the most intense interest among low income homes, in fact, suggesting that it is cost and not interest that holds them back. Want a killer application for low income households? E-mail. Many can't afford long distance rates, some move too often or have no home, can't keep a phone line…. The applications already exist, but the people who need them most can't afford them – or don't constitute an attractive enough market.[38]

From: Curt Howland

While the inverse relation between cost and pervasiveness is certainly true, I must take issue with comparing the Net to TV. Such comparisons allow for the taking of information, but not for the tremendous possibilities involved with ease of *providing* info. There is no reason to think that a future Stephen Hawkings isn't sitting right now in front of a boob-tube sucking down Mighty Morhpin Power Rangers because there is no way for his ideas to be expressed.

Without the facility to put ideas out, with each person acting as a information provider assumed from the outset, we are doing ourselves a great dis-service.[39]

From: Don Evans

A two way street for all Americans. Not only should they be able to receive from the net, but

they also must be able to provide their unique information.[40]

From: Michael Hauben
I. Universal Access Basic Principles

In order for communications networks to be as useful as possible, it is necessary for it both to A) Connect every possible resource and opinion, B) Make this connection available to all who desire it.

A and B call for Universal Interconnection, rather than Universal Access. The usage of "interconnection" highlights the importance and role of every user also being an information provider. The term "access" stresses the status-quo understanding of one-way communication, the user accesses information that other "authorized" information providers make available. This is the old model. The new model is of interconnection of many different types of people, information, and ideas. The new model stresses the breakdown of old definitions of communication and information. Diversity allows for both the increasing speed in the formation of new ideas, and the ability for previously unauthorized ideas to have the airing and consideration they rightfully deserve.

II. Definition of "Services" to be available on this Universal Interconnection

The new era of interconnection and many-to-many communication afforded by Netnews and Mailing lists (among other technologies) brings to the forefront a model of bottom-up rather than top-down communication and information. It is time to reexamine society and welcome the democratizing trends of many-to-many communication over the one-to-many models as represented by broadcast television, radio, newspapers and other media.

As such, I would say it would be important to highlight, discuss and make available interactive modes of communication instead of the passive transfer of information. Thus I am suggesting emphasizing of forms of multiple way of communication and broadcasting. Forms currently defined by newsgroups, mailing lists, talk sessions, IRC sessions, MOO experiences, and other forms of sharing and collaboration. These type of forums are where this new technology excels. Plenty of media exist which facilitates the passive transfer of information and goods. (Such as mail-order, stores, telephone orders, etc.) It would be best to explore and develop the new forms of communication which this new media facilitates, and which was less possible and present in the past.[41]

From: B. Harris
Summary of the Affordability and Availability Conference

The Internet and the Global Computer Network are providing a very important means for the people of our society to have an ability to speak for themselves and to fight their own battles to better the society.[42]

From: Eric Rehm

Conception of access, I would posit, demands a much more interactive use of the medium and perhaps the bandwidth needs are more balanced: This example can then be extended to any

number of community organizations with members as avid information producers.

In other words, basic service based on enabling "many producers" might actually prompt a larger share to be allocated to bandwidth OUT of the home than that envisaged by the Baby Bells and cable companies.

It seems to me, in rural America, there would be even more fear of not having ample "basic" bandwidth to be a producer because the distance to such an "access point" might be enough to effectively deny community production.[43]

E. Efficiency of E-mail vs Video, etc.

In the discussion about universal and equal access to the Internet, access to live video and the problems it creates was introduced. Some participants argued that "video on demand" would be a resource hog, and again introduce inequality into the online world based on who could pay, and also creating a different priority in use of network bandwidth. One participant contributed a message titled "Net Economics 101" which gave tables showing the relative sizes of different forms of data. Carl Hage made his comparisons clear by writing, "A single video movie is equivalent to 6 million people sending a one page e-mail message." He concluded his message by writing, "Why should we provide subsidized video access to a few when we could use those resources to provide textual information to millions?"

Another participant differed and stated that providing video is important so that access can be offered to the percentage of the U.S. population which is illiterate. A couple of other participants stated that video has enormous educational expressive potential. It was important that the virtual conference allowed for the presentation of different points of views, as that assists in figuring out the best way forward.

From: Debbie Sinmao

On Tue, 15 Nov 1994, Richard Civille wrote:

>
> At 2:26 PM 11/14/94 -0800, Michael Strait wrote:
>
> >I think the simple answer to that is: single-line telephone
> >service capable of supporting touch tone and computer modem exchange.
> >Tomorrow is something else, but that should be the minimum today.
>
> What would a basic basket of services be in five years? In ten? And, by
> what process do we change our minds and expand our definition?

Whatever the basket will be in 5, 10, etc. years, it should not include Al Gore's idea of video on demand…unless it is for educational uses – if you want to see a movie, go to your nearest movie theater or rent a video from Blockbuster.[44]

From: Robert J. Berrington III

I agree with Debbie. At the current date, we don't have the technology to support such things. It may be 50 years down the road before that technology is available. Why clutter up a system that

can't handle such a load.[45]

From: Rey Barry
> Date: Thu, 17 Nov 1994 14:56:57 CDT
> From: gunzerat@vaxa.weeg.uiowa.edu
> To: redefus@virtconf.ntia.docgov
> 2) To debbie: I think it's shortsighted to equate "video on demand," or
> video in any form in the new age with what we can presently pick up at
> Blockbuster. For that matter, to think in terms of video as a passive,
> "something to watch" form seems to me to ignore its potential.
>
> That's why I don't think it's right at this point to dismiss Al Gore; video
> has the potential to allow for perhaps even greater educational and
> expressive possibilities than text. To limit ourselves at the outset could
> mean missing out on the greatest possibilities.

Creative video is a neat concept. Thanks for bringing that up. The fear that Gore is bursting with desire to sell out to commercial interests is the opposite of what comes through when you talk to him or look at the work he focused his life on.[46]

From: Ron Choura

Advanced telecommunications services should not be legislatively mandated for inclusion in the definition of universal service. Universal service funding of such services is not appropriate unless and until a critical mass of demand develops. Inclusion of such services in the definition would yield anticompetitive results, since services typically included in universal service do not have all relevant costs allocated to them.[47]

From: Carl Hage

One thing to keep in mind is that digital transmission of text, e.g. e-mail is very efficient. For each user who sends e-mail instead of fax or telephone call, hundreds of additional users can send e-mail in the transmission resource saved.

Access of gopher or www text is similar to e-mail in efficiency. Pictures, voice/audio and video are, of course, much more expensive.[48]

From: Carl Hage

But according to the polls, the public is skeptical about the ways in which the industry is touting the NII and they see other more important uses. With the focus on video entertainment, my fear is that the less glitzy uses will be delayed and left out. Also, the focus towards high-end technology is a diversion of resources which could be used to provide low end data communications to all instead of video for a few.[49]

From: Carl Hage

Here are some tables showing the relative sizes of data in different forms:

The following table gives a comparision of a page of text (obtained from an OTA report on the NII) in various forms, either in compressed or uncompressed ASCII text (averaged), as a page of fax, voice where the text was read aloud, or in video form where the speaker read the information aloud.

Relative Sizes for Multi-Media Information

Type	Text Pages	MB
Compressed Text	1	0.0011
Uncompressed Text	3	0.003
Fax Image	40	0.04
Fax Modem Transmission	270	0.27
Compressed Voice (8:1)	200	0.2
Compressed Voice (2:1)	800	0.8
Voice Telephone (64Kb)	1600	1.6
Low Quality VideoPhone (H.320)	3200	3.2
Commercial VideoConf	6400	6.4
High Q VideoConf (H.120 1.5Mb/s)	37000	37.5
Compressed Broadcast Video	167000	167
Uncompressed Video (currently used)	1100000	1100

The last entry of about one million to one is the size as used in an actual NII sponsored video classroom, <http://www.ncih.net/>. Access for schools costs $4000/mo for 1 video link or $8000/mo for 2, paid for by state grants.

An ordinary voice telephone call consumes more than 3000 times the data inside an email message (calls use 64Kb in two directions). Fax images are about 50 times more than the equivalent compressed text in disk storage space, but consume about 300 times the telecommunications resources when trasmitted via modem, or 100 times if the text is not compressed.

Comparisons of 1GB of Digital Information	Number/GB
1 page documents	1000000
100 page documents	10000
Kodak Photo-CD pictures	1000
JPEG Images (640x480 @ 10:1)	10000
Minutes of Voice Telephone	400
1.44MB Diskette	700
CD-ROM	1.5
2 Hour Movies	0.2
Purchase cost of hard disk	$500
Purchase cost of floppy disks	$250
Equivalent of a 2 Hour Digital Video Movie	
---	
1 page documents	6000000
100 page documents	60000
Kodak Photo-CD pictures	6000
JPEG Images (640x480 @ 10:1)	60000
Minutes of Voice Telephone	2600
Hours of Voice Telephone	43
1.44MB Diskettes	4200
CD-ROMs	10
GigaBytes	6

A single video movie is equivalent to 6 million people sending a one page e-mail message. Why should we provide subsidized video access to a few when we could use those resources to provide textual information to millions? For example, we could make the federal register and congressional record available to everyone for free rather than have to pay $375 per person/year to access any part.[50]

F. Libraries as Points of Public Access?

Libraries were proposed as a central public location where people could gain access to the Internet. This would be especially helpful to those who cannot currently afford to buy a computer. There was discussion about how the role of libraries might change from a location where information is stored, to one where information access is facilitated through training and individual help from librarians.

There were problems inherent in suggesting libraries be the public access point. First, library hours would limit when access would be available for those without computers and Internet accounts, and libraries might only be able to provide limited access to the Internet – if, for example, they could only afford the cheapest modems. One participant mentioned that his local library did not receive its latest funding, because the bond was voted down. This raises the issue of funding if libraries are to take on the role of Internet access provider. Another participant brought up the fact that since many communities do not have a local library, those communities would also not have any public access site if libraries were to be the only public sites for access to the Net.

FOR: Libraries as universal points of access:

From: Kathleen L. Bloomberg

Libraries are universal access points to information for school students, faculty at higher education institutions, and the general public. Not everyone will have a microcomputer and modem at home in the future just like everyone doesn't have plain old telephone service now. Librarians are trained in facilitating access to information and are an integral part of the emerging information superhighway.

According to a recent survey by the National Commission on Libraries and Information Science, 21% of the public libraries in the United States are accessing the Internet now. That number is growing monthly. Most academic libraries and many school and special libraries also are using the Internet regularly to meet their patrons' needs.

From: Solomon Philip Hill

Until the time comes when everyone can afford a personal terminal of some sort, I think that the community center or library model of access works pretty well. This leaves open the question of training which seems to be the least talked about, but possibly most important aspect here.[52]

From: Dave W Mitchell

It is indeed true that the public library model provides a philosophical and structural underpinning, yet the immense popularity of talk radio (for example) shows a strong underlying hunger for communication of individual reactivity and creativity. In its satisfaction may lie the tool wherein we redefine the compact with one another on which this society was founded.[53]

From: Susan G.

I agree – the public library is definitely a good place to start for public access. It isn't the only solution, but there is rarely just one good answer to a complex problem. Rather multiple good answers.[54]

From: Carl Hage

Currently libraries pay substantial fees to obtain reference material in print or microfilm form. Actually, due to budget problems, many libraries, including my own, are cutting back on this material. If this material were available electronically, then purchases of microfilm, etc. could be discontinued and the money saved could be used for hardware and network access fees.

I believe that better dissemination of information could be used to provide more cost effective access for libraries, where the equipment, software, and methods of access can be tailored to the needs for libraries.[55]

From: Lew McDaniel

> I believe that better dissemination of information could be used
> to provide more cost effective access for libraries

The ideas which follow the above are good ones. To me, they show the concept of "library"

evolving from common source of information and repository to "facilitator of access" in addition to today's functions. Particularly if all the have-nots are going to head for the library I-way access point.

I see libraries, K-12, and higher education all becoming significantly more competitive, more virtual, and less corporeal if the I-way reaches fruition. Even though each provides a great deal of value inappropriate to a telecommunications line – social interaction, community cohesiveness, etc.[56]

AGAINST: Libraries are not the solution of the access question:

Others disagreed that libraries could solve the problem of universal access. They presented some of the problems libraries are having even surviving and noted that there are many locations that do not have libraries.

From: mtn

Much as I'd like to believe it, I do not feel that libraries solve the access problem. First, access is already limited by the hours of the library. In a world where success and (em)power(ment) may hinge upon immediate access to information, it's tough to assume that people who must schlep over to the library and wait in line for a 1200 baud (when I last checked) modem and terminal are on an equal footing.[57]

From: Stephen Brenner

I like the library model as well. Unfortunately, our library bond went down to defeat in the last election and they aren't likely to take on this role without funding. In the meantime, providing free access to the Internet, including public access terminals, is part of Oregon Public Network's charter.[58]

From: Carol Deering

I just wanted to mention the large Indian reservation which surrounds our town. A great many people who live there have no telephones and some even no TV. I have seen mention in this conference of other rural situations, but I wanted to be sure to include this type of rural instance. There is no library service to this area, either.[59]

From: Marilyn Letitia Korhonen

I agree to the extent that schools and libraries will allow this. We do not have a library in my local phone exchange, so that wouldn't serve my area and many others. The schools would be an answer for some, but the school in my district is not interested, even if I'll write grants for them. They do not trust it, they can not see the usefulness in their day-to-day lives, and they are simply not interested.[60]

G. Debate Over the "Free Market"

A strong debate took place on both conferences over how Internet access could be best deployed throughout society. Some people argued the "market" would provide the best quality service to most people, while others challenged the notion that "the market" could provide such access. Therefore many said that it was important for government to play a strong role in making

access available universally. Those encouraging a governmental role understood that the "market" would not work towards providing access to those living in areas where access would be harder to provide, or for those with special needs.

1. On the Need for a Government Role:

From: Ron Choura

Now, however, there is near universal consensus that opening up these markets to competition will lead to enhanced benefit for most consumers. But, can we be sure that market forces alone will achieve the goal of widely available, affordable services for all Americans? Is action by state and federal governments needed? What should be done? States must have the ability to ensure that high quality service is provided in markets that are less competitive or attractive for investment.[61]

From: Frank Whittle

The term "economic development" has become prominent in state telecommunication policy during the last ten years as the states battle to retain and attract industry. It appears from the preliminary research that the issue of providing universal access (services) has become less prominent in policy documents.[62]

From: Brent Wall

If one reads the testimony given at the hearings conducted on the NII and the global infrastructure by the Dept. of Commerce, one can detect two sense[s] of the terms "universal access" at work. The Motorolas, with their pleas for a wireless world, and cable companies with their arguments for phone service, and phone companies with their exhortations for delivering cable service, one comes away with a sense that universal access means: supply access – or the ability of service providers to access the NII (whatever infrastructure this may turn out to be) and sell their wares.

Yet, there is a second sense ascribed to these terms, one often advocated by community-based advocates, almost invisible in the national dialogues of service purveyors. And this is that universal access refers to access to the net by all, rich and poor.

Given the tenor of the NII discussions I have monitored, there is a threat that the latter meaning is being absorbed by the former.[63]

From: Henry Huang

The idea that the "free market" is going to solve all our problems is a MYTH. Go back and look over the history of most of the major on-line providers PRIOR to the recent big Internet expansion, and consider their current policies regarding Net access. No one who values their time, money, or access would seriously consider getting on the Internet through ANY of the major services, be it Compu$erve, Delphi, Prodigy (HA!), or America Online.

The reason for this is simple: each one of these services has either restricted the Net services available (hence restricting your access), and/or charges you way too much for it compared to some of the other access providers currently around.[64]

From: Rey Barry

Provide any sort of datahighway with near-universal access and people will spend money developing ways to make a living from it. The glory of the system. Tailor the highway to commercial interests from the start and you surely build in roadblocks to pro bono services, the danger of the system.[65]

From: Paul Weismantel

Dr. Priest's observation regarding the Advisory Council is clear…. Business in general is frightened by the very underpinnings of Universal Access, because it amounts to a mandate, which is usually a drain on profits.

Unless we can approach the discussion so as to fit into the business scheme (and that does not necessarily mean full recovery of investment in all cases), some members of the council will prevail in pushing off this issue by a lowest common denominator solution.[66]

From: Martin Kessel

There was strong sentiment that the competitive market alone will not serve the nation's needs. As Steve Miller said, "The free market is like a ship with 100 sails blowing full blast and no rudder. Public policy provides the rudder."[67]

From: Richard M. Kenshalo

We can't be led to believe that market forces will eventually provide for the investments necessary for rural America, where loop costs remain extremely high. Without existing (and probably re-defined) price support structures, and an expanded definition of Universal Service to include guaranteed information access, we will truly develop a society of information "haves" and "have-nots".[68]

From: Jeanne Gallo

We would like to urge the administration and congress to pass legislation which mandates the setting up of community sites where citizens of all ages, etc. can have access provided. This will mean that funding will need to be available for setting up such centers with the technology that is needed to be on-line and that universal access will need to be built into any proposals, such as was done for universal access to the telephone. Subsidies may be a "dirty" word in D.C. at this moment, but they will be necessary if we are to include all of our citizens in the technology of the future.[69]

From: B. Harris

Summary of the Affordability and Availability Conference

The territories are not naive in insisting that the information infrastructure must accomodate both access and low rates. Without both, the territories will receive no benefit and will in fact find their needs increasingly marginalized.

General summary: Several people expressed concern that the development of the NII has focussed on business interests and economic development rather than on ensuring access for all Americans. The theme the economic development will not by itself bring universal service to reality

surfaced repeatedly.[70]

From: Carl Hage

I certainly agree with your point, and I would use these examples as proof that a free market does not exist. I don't think most people fail to value their money, just that the big advertizing machines, and the PC magazine-industrial complex have duped an uneducated public, and an uneducated government.

Yes, the free market will *not* provide equal access to rural areas, etc. However, the solutions for rural areas might be radically different. It is least likely that there will be much of any competitive market in rural areas, so co-ops, monopolies, etc. might be required.[71]

2. Opposition to Government Regulation

From: Viraj Jha

>> While 'public access' is sometimes considered either a necessity or
>> a public good, what effects will the above choices make on a market
>> that is still in the early stages of development? Specifically, will
>> public access stunt market and technological development in the long
>> term?
>
>What does "stunt" mean in this case?

By 'stunt' I probably more accurately meant 'distort' – in other words, would the rate of technological development be slowed by such a policy? Certainly industry leaders fear that strict regulation would hinder their profit-maximizing activities; in high competition technology markets these profits are often linked to innovation. Congressman Boucher in '92 agreed with Bell Atlantic that its deployment time for fiber optic lines could be halved absent stringent line of business regulation. Might similar regulations/subsidies for universal access not cause technological stagnation?[72]

From: Christine Weiss

Another viewpoint to add to the discussion comes from John Browning in an article from the Sept. '94 issue of WIRED: "…universal service is a 1930's solution to a 21st century problem. ...the solution is Open Access." In a nutshell, it seems that Open Access would ensure a competitive marketplace, that would in turn keep costs low. Another option, for what its worth….[73]

From: Carl Hage

I believe we can use the free market and competition to significantly lower the cost to access the net and provide a wide variety of options. There are a number of things that the government could do to enhance the competition and available services which would cost very little.[74]

From: Stan Witnov
Dear Conferees,

Why are so many participants against unleashing American business (AND it's stereotypical greed)in order to let the invisible hand lead us to the most efficient use of resources. I certainly trust that our government regulators and court system will move in at the appropriate time and correct some of the "wrongs" which are inevitable (whether we're under a government OR private enterprise umbrella).

I believe our great advantage here is to let venture capital risk itself for a profit but in so doing create and market services which increase user knowledge, accessibility, and the population of users.[75]

From: Jawaid Bazyar

In response to ab368@virgin.uvi.edu (Bruce Potter):
>To the NTIA, we ask careful attention to the equity issues of access, and
>a federal guarantee of access and availability.

Oh my, it looks like the Socialists have grabbed onto the Internet as their next great crusade. If you choose to live on an island in the middle of the ocean with a small population, you can expect to pay a lot for high-tech services.[76]

From: Curt Howland

There are left only the people making Universal Access in one form or another happen, and those that just talk, begging the Big Friendly Government to wait on them hand and foot.[77]

H. NTIA Conference as Prototype for Future Democracy

Some participants understood that the conference they were participating in could be seen as a model of citizen participation in government. They were thus thoughtful in considering the future and how these technologies could be used. A participant from Boston suggested it was important that permanent public access sites be established in order for any policy decisions to happen.

From: Martin Kessel

Some participants questioned whether it will be truly feasible to put a computer terminal in every home. However, there was strong agreement that access should be available at public sites, such as libraries, schools, and other community places. This would be an extension of the model used by the NTIA in holding this Virtual Conference, noted Michelle Johnson, a reporter for the Boston Globe. Federal help is needed to provide libraries with resources and technical expertise.[78]

From: Carl Hage

Thank you for the opportunity to participate in this discussion, and provide my input into the shaping of the future information age in America. I believe that using the Internet offers the potential to obtain high quality information needed for proper decision making, as well as improving the access of the government to the public.[79]

From: Hubert Jessup

Reading the discussion of the past two days about redefining universal access has confirmed our conviction that public access sites are not just important for this virtual conference but are needed as a permanent aspect of the development of the NII. Typically, only universities and certain businesses have Internet access. For the average American, these forms of access are far too limited. Consequently, citizens have little experience with the net and understanding of what is at stake in its development. Also, basic computer skills – even as simple as logging on and typing a message – are lacking for most Americans.

What is needed in our opinion is on-going, institutionalized public access sites. We think these should be based in a variety of community based institutions, including the public libraries, public schools, and public access cable centers. These sites need equipment, Internet connection, staffing, and basic operating support. And, of course, these sites need funding….

If we as a country do not develop a permanent, institutionalized and consistently supported system of public access sites, the NII will develop quickly among the current information "haves" but will totally leave behind the vast majority of Americans who are information "have nots". Facing this same situation concerning literacy in the early part of the 19th century, the response by public spirited Bostonians was the development of funding for the first public schools and public library in America. Soon, these institutions were quickly adopted by every city and town in America. Now, with a new technology and a new type of literacy, we as Americans should strive to expand our democracy by developing public access sites on the NII.

I. Importance of Need for Time to Learn at Own Pace

Paying for access limits what someone will do online. First it limits how much an individual can care to learn, as the time spent will be costly; people will be selective in what they attempt to learn. Second, it is hard for people to take the time to be helpful to others when they are paying by the hour. The Internet and Usenet have grown to be such a cooperative community because there was no price tag on the cooperation. It will be a step backward to have to pay to access these communities. Individuals should be honored for their contributions to the Net, and not expected to pay.

From: A public access site in Seattle

Obviously, SCN (Seatle Community Network) has been wonderful, since it has allowed me to learn at my own (slow!) pace, without worrying about "wasting money". I am presently on NW Nexus, since I purchased the Internet Starter Kit which came with a coupon for 2 free weeks. I am continuing to pay for it, for a while, because it allows so much more opportunity to learn all the plusses of the Internet…. I am willing to pay the monthly fee for a short time, but unfortunately, I am not in a financial position to be able to continue at this rate for very long. It seems a shame that those of us who are not "well off" cannot reap the benefit of the whole Internet. I am grateful that SCN is there for us.[81]

From: Henry Huang

Hence, in limiting my time, you limit the quality of my posts, and hence the general quality of the discussion.

Many of the people who would want or NEED such free/cheap access are newbies – and

hence EXACTLY the sort of people who WOULDN'T have the experience, knowledge, or time necessary to overcome the limits on their access. The less access you provide a person with, the more trouble that person has to go through JUST to get UP to a sufficiently useful level.[82]

From: Sean Connell

An open communication infrastructure will allow children ample opportunity to explore and increase their knowledge at a pace with which they are comfortable.[83]

J. Need for openness because of development via open and free standards.

The Internet has developed out of connecting networks together based on open and available standards. These protocols were developed by many people over the ARPANET and Internet. Commercial development is usually proprietary and closed. The Internet will develop much slower if the pressure towards commercialism is allowed to overwhelm the open and cooperative culture of the Net.

From: Henry Huang

The NII is NOT a harbringer of change…the Internet WAS – hence this conference (run using list server software on a UNIX box, and sent mostly over Internet links).[84]

From: Henry Huang

Now look at the development of the Internet. Even with the astonishing growth of the World Wide Web and Mosaic (and perhaps soon Netscape), much of the Net is STILL ruled by text-based standards first set down perhaps a decade or more ago. The vast majority of E-mail is STILL text In fact, E-mail and News are often cited as two of the most useful services offered by the Net, despite their clunkiness. As quirky and outdated as they are, they still WORK – more to the point, everyone HAS them. If everyone had a different format for E-mail messages, no one could communicate with anyone else – thus defeating the very purpose of E-mail!

Even more important, many of the standards adopted by the Internet are OPEN standards, freely available to anyone who's interested in modifying or improving them. Compare this to companies which charge you an arm and a leg for their proprietary code. Now, which one do YOU think people will be more willing to work with, and improve?

What no one seems to realize is that the Net is anything BUT a commodity – it's a means to an end. And that end is not profit, but *GLOBAL COMMUNITY*.

If we treat the Net as a commodity, then inevitably that's what it's bound to become – a balkanized, divided, proprietary collection of private networks which neither know nor care about the existence of the others. It would be like a giant version of Compu$erve, only many times worse. And in the end, by putting walls and barriers between the very users who need to communicate with each other, they will have eliminated the sole reason for their own existence – as a means to COMMUNICATE, quickly and efficiently. And when that happens, either they will die, or the future which they (and all of US) sought to promote will be relegated to obscurity.

And that would be an absolute shame.[85]

From: Carl Hage

How can we devise incentives for investment in technologies for the "last mile" to the home?

The key to an investment in products needed and availability at a mass produced low price, is the establishment of standards and a detailed goal.

If there is an agreed upon standard and a large market, then a number of companies will build very low cost products designed for high volume sales. If the standard is not agreed upon, and/or deployment is uncertain, then there may not be cost effective products available.

The best way to establish standards and then insure there is a rich market of supporting products is to have open, public domain standards, with public domain reference implementations and test software.

The Internet standards established by the IETF are a good example. All the specifications are available electronically and free to the public. In order to be adopted, there must be a working implementation, and typically there was a public domain version available as a starting point and as a comparison.

Part of the research money for the NII could go toward producing some competing designs for these technologies, which could result in a public version of the specifications, and a sample reference design. Also, research money could go to produce testing software and an interoperability laboratory. Vendors who produce chipsets and boards can take the standards and reference implementation and use that as a basis for a specific product, and could then make use of the test suites and interoperability laboratory.

Public funding for the establishment of the standards, reference implementation, and test suite would eliminate many interoperability problems, and would yield low cost products very quickly, as each vendor would not need to duplicate this basic research. The money saved in lower cost product availability for the government's internal use would more than pay for the investment in a publicly available technology.[86]

III. Conclusion

Because the NTIA conference was held online, meant that many more points of view were heard than is normal. Prominent debates included that of encouraging "economic development" versus mandating "universal service" and depending on the "free market" versus recognizing the need for government regulation to make access available to all. Another issue raised was that the NII will be an extension of the Internet and not something completely new. As such, it is important to acknowledge the origin and significance of the Internet, and to properly study and understand the contribution the current global computer communications network represents for society. Many who participated in the online conference expressed the hope that the government would be helpful to society at large in providing access to these networks to all who would desire this access.

Despite the many objections to privatization of the NSFNet expressed during the NTIA conference in November, 1994, the public NSFnet (National Science Foundation Network) was put to death quietly on May 1, 1995. Users heard about the shut down indirectly. Universities and other providers who depended on the NSFnet might have reported service disruptions the week or two before while they re-established their network providers and routing tables. No announcements were made about the transfer from a publicly subsidized U.S. Internet backbone to a commercial backbone. The switch signaled a change in priorities of what the Internet will be used for. May 1, 1995 was also the opening date of a national electronic open meeting sponsored by the U.S.

government on "People and their Governments in the Information Age." Apparently the U.S. government was sponsoring this online meeting from various public access sites, and paying commercial providers in the process. Something is deeply ironic in this government-mandated change to increase government expenses.

But also, on May 1, 1995, there was a presentation at a branch of the New York Public Library which focused on the value of the Internet and Usenet as a cooperative network where people could air their individual views and connect up with people around the world. The Internet and Usenet have provided the means for new voices to be heard without being overwhelmed by the more established voices of society. This May First, traditionally a people's holiday around the world, the domain of the commons was opened up to the commercial world. But the commercial world already has a strong hold on all other broadcast media, and these media have become of little or no value. The Internet has been a social treasure for people in the U.S. and around the world. It is important to value this treasure and protect it from commercial interests. As such, this move by the U.S. government is disappointing, especially considering the testimony presented by many Internet and Usenet users who participated in the November 1994 NTIA Virtual Conference on Universal Service and Open Access to the Telecommunications Network.[87]

In order to make any socially useful policy concerning the National Information Infrastructure (NII), it is necessary to bring the greatest possible number of people into the process of discussion and debate.[88] The NTIA online conference is a prototype of possible future online meetings leading to direct democracy. There are several steps that need to be taken for the online media to function for direct democracy. First, of all, it would be necessary to make access easily available, including establishing permanent public Internet access computer locations throughout the country along with local phone numbers to allow citizens to connect their personal computers to the Net. Secondly, it is wrong to encourage people to participate in online discussions about government policy, and then ask them to pay for that participation. Rather, it would be important to be able to figure out some system of paying people who participate in their government. Payment for participation is not an easy issue to decide, but it is a necessary step forward in order to facilitate more participation by more people.

The online archives of the avail forum and the redefus forum provide very important reading. It would be valuable if they were available in print form and available to those involved with policy decisions on the NII and for people around the U.S. and the world who are interested in the future of the Net. This online conference was an important landmark in the study towards the development of the NII. However, it should not only stand as a landmark, rather it should set a precedent for future conferences which will hopefully start as the basis of a new social contract between people and their government.

Notes for Chapter 14

1. Essays on Government, Jurisprudence, Liberty of the Press and Law of Nations, reprint, Kelley Publishers, New York, 1986, p. 8.

2. Ibid., p. 6.

3. Ibid., p. 13.

4. “Journalism, Publicity, and the Lost Art of Argument,*” Media Studies Journal*, Vol. 9 no. 1, Winter 1995, p. 81.

5. Ibid., p. 89.

6. Jeffrey B. Abramson’s “Electronic Town Meetings: Proposals for Democracy’s Future,” prepared for the Aspen Institute Communications and Society Program.

7. The Net is the Internet, Usenet, Mailing Lists, etc.

8. The NTIA virtual conference was co-sponsored sponsored by the National Telecommunications Information Administration (NTIA) and the Information Infrastructure Task Force (IITF), as part of the Administration’s National Information Infrastructure initiative.

9. The goals of the NTIA Conference were listed in chapter 15.

10. From: Sean <sconnell@silver.ucs.indiana.edu>
    Subject: Re: [AVAIL:41] my question
    Date: Wed, 16 Nov 1994 00:33:24 -0500 (EST)
    Message-Id: <199411160841.AAA27213@virtconf.digex.net>

11. From: James McDonough <epin@access.digex.net>
    Date: Wed, 16 Nov 1994 09:49:40 -0500 (EST)
    Subject: Re: [AVAIL:42] Re: my question
    Message-Id: <Pine.SUN.3.91.941116094225.11331A-100000@access2.digex.net>

12. From: Randolph Langley <langley@dirac.scri.fsu.edu>
    Date: Thu, 17 Nov 1994 09:27:51 -0500
    Message-Id: <199411171427.AA91585@dirac.scri.fsu.edu>
    Subject: [AVAIL:57] Re: my question

13. From: Bob Summers <bsummers@vt.edu>
    Date: Thu, 17 Nov 1994 17:27:09 -0500
    Message-Id: <199411180135.RAA07684@virtconf.digex.net>
    Subject: Re: [AVAIL:96] Re: my question

14. From: W. Curtiss Priest <BMSLIB@MITVMA.MIT.EDU>
    Date: Mon, 21 Nov 94 09:10:21 EST
    Subject: Re: [REDEFUS:189] REDEFUS digest 29
    Message-Id: <199411211811.KAA17129@virtconf.digex.net>

15. From: wc_resa@server.greatlakes.k12.mi.us (Wayne County RESA)
    Date: Mon, 14 Nov 1994 14:17:11 -0500
    Message-Id: <9411141918.AA07357@server.greatlakes.k12.mi.us>
    Subject: Re: [REDEFUS:17] Re: Public Access

16. From: BNN Television <bnn@world.std.com>
    Date: Thu, 17 Nov 1994 18:20:01 +0001 (EST)
    Subject: Re: [REDEFUS:37] Re: Public Access
    Message-Id: <Pine.3.89.9411171753.A23713-0100000@world.std.com>

17. From: Brent Wall <brentw@freenet.scri.fsu.edu>
    Date: Sat, 19 Nov 1994 11:22:46 -0500 (EST)

Message-Id: <Pine.3.89.9411191130.C17368-0100000@freenet3.scri.fsu.edu>

18. From: Stephen Brenner <sbrenner@efn.org>
    Date: Wed, 16 Nov 1994 05:07:24 -0800
    Message-Id: <9411161210.AA17284@efn.efn.org>
    Subject: Re: [REDEFUS:31] Re: Public Access

19. From: Lew McDaniel <MCDANIEL@wvuadmin3.csc.wvu.edu>
    Organization: WVU Computing Services
    Date: Mon, 14 Nov 1994 14:55:34 EST
    Subject: Re: [REDEFUS:15] Pilot Projects
    Message-ID: <3A45E1049AE@wvuadmin3.csc.wvu.edu>

20. From: Dave W Mitchell <dmitchel@ednet1.osl.or.gov>
    Date: Mon, 14 Nov 1994 14:12:54 -0800
    Message-Id: <199411142212.AA12401@ednet1.osl.or.gov>
    Subject: Re: [REDEFUS:22] Re: Pilot Projects

21. From: Daniel Lieberman <danlie@ix.netcom.com>
    Date: Thu, 17 Nov 1994 14:11:03 -0800
    Message-Id: <199411172211.OAA24888@ix.ix.netcom.com>
    Subject: Competency and access

22. From: Sean <sconnell@silver.ucs.indiana.edu>
    Subject: A Plea
    Date: Thu, 17 Nov 1994 23:00:28 -0500 (EST)
    Message-Id: <199411180708.XAA21950@virtconf.digex.net>

23. From: Colette Brooks <crb@well.sf.ca.us>
    Date: Sat, 19 Nov 1994 09:30:16 -0800
    Message-Id: <199411191730.JAA19829@well.sf.ca.us>
    Subject: my 2$

24. From: Bill Russell <RUSSELLB@ext23.oes.orst.edu>
    Message-Id: <2ed3a9cf.ext23@ext23.OES.ORST.EDU>
    Date: 23 Nov 94 12:45:00
    Subject: Re[2]: [REDEFUS:68] Re: NTIA Virtual Conference universal access.

25. From: Brent Wall <brentw@freenet.scri.fsu.edu>
    Date: Sat, 19 Nov 1994 11:00:24 -0500 (EST)
    To: avail@virtconf.ntia.doc.gov
    Message-Id: <Pine.3.89.9411191018.A17368-0100000@freenet3.scri.fsu.edu>

26. From: HARVEY GOODSTEIN <HGOODSTEIN@gallua.gallaudet.edu>
    Date: Thu, 17 Nov 1994 14:18:52 -0500 (EST)
    Subject: Universal Service definition
    Message-id: <01HJL7LBBLQQ01ERLS@GALLUA.BITNET>

27. From: Ellen Davis Burnham<edb1@Ra.MsState.Edu>
    Date: Sat, 19 Nov 1994 22:09:22 -0600 (CST)
    Subject: Re: [AVAIL:124] AVAIL digest 29
    Message-ID: <Pine.SUN.3.91.941119212024.9892B-100000@Isis.MsState.Edu>

28. From: LucyCo@aol.com
    Date: Sun, 20 Nov 1994 15:09:31 -0500
    Message-Id: <941120150557_3543309@aol.com>
    Subject: Re: [AVAIL:137] AVAIL digest 37

29. From: Carl Hage <chage@rahul.net>
    Date: Sun, 20 Nov 94 18:52:16 PST
    Message-Id: <9411210252.AA20328@slick.chage.com>
    Subject: Glasnost for the Information Age

30. From: Chloe Lewis <chloel@microsoft.com>
    Message-Id: <9411222159.AA07745@netmail2.microsoft.com>
    Date: Tue, 22 Nov 94 14:00:29 TZ
    Subject: the Internet's other ancestor

31. From: Carl Hage <chage@rahul.net>
    Date: Tue, 15 Nov 94 05:21:42 PST
    Message-Id: <9411151321.AA18686@slick.chage.com>
    Subject: Redefining Universal Service and Open Access

32. From: Susan Hadden <shadden@mail.utexas.edu>
    Date: Thu, 17 Nov 1994 14:52:01 -0600
    Message-Id: <199411172052.OAA23573@mail.utexas.edu>
    Subject: Re: [REDEFUS:128] REDEFUS digest 14

33. From: Bob Jacobson <cyberoid@u.washington.edu>
    Date: Mon, 14 Nov 94 22:04:12 -0800
    Message-Id: <9411150604.AA25921@stein1.u.washington.edu>
    Subject: Re: [REDEFUS:19] Re: Public Accesss

34. From: Carly Henderson <cmh@lclark.edu>
    Date: Thu, 17 Nov 1994 13:36:33 -0800 (PST)
    Message-Id: <Pine.OSF.3.91.941117131202.5097A-100000@sun>

35. From: Robert J. Berrington III <berringr@river.it.gvsu.edu>
    Date: Fri, 18 Nov 1994 11:11:42 -0500 (EST)
    Subject: Public awareness
    Message-Id: <Pine.HPP.3.90.941118104318.23355A-100000@river.it.gvsu.edu>

36. From: Martin Kessel <mkessel@world.std.com>
    Date: Wed, 23 Nov 1994 15:29:57 -0500
    Message-Id: <199411232029.AA16911@world.std.com>
    Subject: BNN Cablecast on Universal Access

37. From: <MAADR007@SIVM.SI.EDU>
    Date: Thu, 17 Nov 94 14:00:16 EST
    Subject: universal access but not ubiquitous use
    Message-Id: <199411172209.OAA20275@virtconf.digex.net>

38. From: Dr. Robert LaRose <LAROSE@tc.msu.edu>
    Date: Thu, 17 Nov 1994 15:03:37 EST
    Subject: Re: [REDEFUS:123] universal access but not ubiquitous use

Message-ID: <224FE632CC5@tc.msu.edu>

39. From: howland@nsipo.nasa.gov
    Date: Wed, 16 Nov 1994 19:19:23 -0800
    Message-Id: <199411170319.TAA11501@noc2.arc.nasa.gov>
    Subject: Re: [REDEFUS:67] Re: Public Access

40. From: Don Evans <don@dcez.com>
    Date: Mon, 14 Nov 1994 13:25:42 -500 (EST)
    Subject: Universal Access...
    Message-ID: <Pine.3.89.9411141352.G26106-0100000@dcez.dcez.com>

41. From: Michael Hauben <hauben@columbia.edu>
    Date: Tue, 22 Nov 1994 01:54:36 -0500
    Message-Id: <199411220654.AA28036@merhaba.cc.columbia.edu>
    Subject: Need to stress concept of active communication and interconnection

42. From: BHARRIS@ntia.doc.gov
    Date: Mon, 21 Nov 1994 16:04:59 -0500
    Subject: Interim Summary for Availability List

43. From: rehm@zso.dec.com
    Date: Mon, 14 Nov 94 13:50:03 -0800
    Message-Id: <9411142150.AA09999@slugbt.zso.dec.com>
    Subject: Re: [REDEFUS:22] Re: Pilot Projects

44. From: Debbie Sinmao <debbie@harmony.cdinet.com>
    Date: Thu, 17 Nov 1994 13:17:18 -0500 (EST)
    Subject: Re: [REDEFUS:40] Re: NTIA Virtual Conference KeyNote Address
    Message-Id: <Pine.3.89.9411171341.A27812-0100000@harmony.cdinet.com>

45. From: Robert J. Berrington III <berringr@river.it.gvsu.edu>
    Date: Thu, 17 Nov 1994 13:30:11 -0500 (EST)
    Subject: Re: [REDEFUS:115] Re: NTIA Virtual Conference KeyNote Address
    Message-Id: <Pine.HPP.3.90.941117132629.13213C-100000@river.it.gvsu.edu>

46. From: Rey Barry <rbarry@hopper.itc.virginia.edu>
    Message-Id: <199411172219.RAA15419@Hopper.itc.Virginia.EDU>
    Subject: Re: [REDEFUS:133] REDEFUS digest 15
    Date: Thu, 17 Nov 1994 17:19:34 -0500 (EST)

47. From: Ron Choura 517-334-6240 <CHOURA%A1@COMMERCE.STATE.MI.US>
    Subject: NARUC Comments D.J Miller
    Posting-date: Mon, 14 Nov 1994 15:37:00 -0400 (EDT)

48. From:
    Date: Wed, 23 Nov 1994 14:41:39 -0800 (PST)
    Subject: What happens when usage expands?
    Message-ID: <Pine.3.89.9411231431.A11463-0100000@netcom13>

49. From: Carl Hage <hage@netcom.com>
    Date: Wed, 23 Nov 1994 16:33:17 -0800

Message-Id: <199411240033.QAA24975@netcom13.netcom.com>
Subject: Re: Comments to C. Hage concerns

50. From: Carl Hage <chage@rahul.net>
Date: Thu, 17 Nov 94 19:31:52 PST
Message-Id: <9411180331.AA19584@slick.chage.com>
Subject: Net Economics 101

51. From: Kathleen L. Bloomberg <bloomber@eagle.sangamon.edu>
Date: Tue, 15 Nov 1994 13:03:22 -0600
Subject: Universal access & libraries

52. From: Solomon Philip Hill <blast@leland.Stanford.EDU>
Date: Mon, 14 Nov 1994 13:51:04 -0800 (PST)
Subject: Re: [REDEFUS:17] Re: Public Accesss
Message-ID: <Pine.3.89.9411141310.A6158-0100000@elaine30.Stanford.EDU>

53. From: Dave W Mitchell <dmitchel@ednet1.osl.or.gov>
Date: Mon, 14 Nov 1994 08:17:20 -0800
Message-Id: <199411141617.AA25971@ednet1.osl.or.gov>
Subject: Statement

54. From: msyssft!microsys!susang@uu6.psi.com
Date: 16-Nov-94 11:35
Message-Id: E0E6C92E01B361E1

55. From: Carl Hage <chage@rahul.net>
Date: Thu, 17 Nov 94 14:14:54 PST
Message-Id: <9411172214.AA19457@slick.chage.com>
Subject: Re: [REDEFUS:19] Re: Public Accesss

56. From: Lew McDaniel <MCDANIEL@wvuadmin3.csc.wvu.edu>
Date: Fri, 18 Nov 1994 08:40:12 EST
Subject: Re: [REDEFUS:139] REDEFUS digest 16
Message-ID: <3FE206E223A@wvuadmin3.csc.wvu.edu>

57. From: mtn@mtn.org (MTN)
Date: Tue, 15 Nov 1994 12:39:33 -0600
Message-Id: <aaee6246010210049a8a@[198.174.235.202]>
Subject: Re: [REDEFUS:19] Re: Public Accesss

58. From: Stephen Brenner <sbrenner@efn.org>
Date: Wed, 16 Nov 1994 05:07:24 -0800
Message-Id: <9411161210.AA17284@efn.efn.org>
Subject: Re: [REDEFUS:31] Re: Public Accesss

59. From: Carol Deering <deering@odi.cwc.whecn.edu>
Date: Fri, 18 Nov 1994 09:33:14 -700 (MST)
Subject: rural areas
Message-ID: <Pine.SCO.3.90.941118085624.725A-100000@odi.cwc.whecn.edu>

60. From: Marilyn Letitia Korhonen <korhonen@tenet.edu>

Date: Fri, 18 Nov 1994 07:52:32 -0600 (CST)
Subject: Re: [AVAIL:100] Re: Rural areas
Message-ID: <Pine.3.89.9411180704.C27478-0100000@Gayle-Gaston.tenet.edu>

61. From: Ron Choura 517-334-6240 <CHOURA%A1@COMMERCE.STATE.MI.US>
Subject: NARUC Comments D.J Miller
Posting-date: Mon, 14 Nov 1994 15:37:00 -0400 (EDT)

62. From: Frank Whittle <WHITTLE@SMTPGATE.sunydutchess.edu>
Message-Id: <9411150254.AA51246@admaix.sunydutchess.edu>
Date: Mon Nov 14 21:53:09 1994

63. From: Brent Wall <brentw@freenet.scri.fsu.edu>
Date: Wed, 16 Nov 1994 19:39:09 -0500 (EST)
Subject: Universal Access--an Equivocation
Message-Id: <Pine.3.89.9411161905.A19851-0100000@freenet3.scri.fsu.edu>

64. From: Henry Huang <hwh6k@fulton.seas.virginia.edu>
Date: Wed, 23 Nov 1994 12:52:37 -0500
Message-Id: <199411231752.MAA45745@fulton.seas.Virginia.EDU>
Subject: Some Thoughts on Public Access (and this Conference)

65. From: Rey Barry <rbarry@hopper.itc.virginia.edu>
Message-Id: <199411172219.RAA15419@Hopper.itc.Virginia.EDU>
Subject: Re: [REDEFUS:133] REDEFUS digest 15
Date: Thu, 17 Nov 1994 17:19:34 -0500 (EST)

66. From: Paul Weismantel <weismant@esd.dl.nec.com>
Date: Wed, 16 Nov 94 13:31:46 -0600
Message-Id: <E15CCA2E011C0000@smtp.esd.dl.nec.com>
Organization: NEC America Inc
Subject: Re: [REDEFUS:80] Re: NTIA Virt

67. From: Martin Kessel <mkessel@world.std.com>
Date: Wed, 23 Nov 1994 15:29:57 -0500
Message-Id: <199411232029.AA16911@world.std.com>
Subject: BNN Cablecast on Universal Access

68. From: RICHARD M KENSHALO <PMRMK@tundra.alaska.edu>
Date: Tue, 15 Nov 1994 08:16:08 -0800
Subject: Universal Service
Message-id: <01HJI2DC28PIHSJAJE@UA.ORCA.ALASKA.EDU>

69. From: Jeanne Gallo (using BNN Television) <bnn@world.std.com>
Date: Fri, 18 Nov 1994 12:22:53 +0001 (EST)
Subject: Community Centers
Message-Id: <Pine.3.89.9411181228.A2135-0100000@world.std.com>

70. From: BHARRIS@ntia.doc.gov
Date: Mon, 21 Nov 1994 16:04:59 -0500
Subject: Interim Summary for Availability List

71. From: Carl Hage <hage@netcom.com>
    Date: Wed, 23 Nov 1994 18:27:53 -0800
    Message-Id: <199411240227.SAA08168@netcom13.netcom.com>
    Subject: Re: Some Thoughts on Public Access (and this Conference)

72. From: Viraj Jha <jhav@bcvms.bc.edu>
    Date: Wed, 16 Nov 1994 09:48:34 +0000
    Subject: Re: [REDEFUS:37] Re: Public Accesss
    Message-Id: <MailDrop1.0b13.941116094834@onra01p6.bc.edu.>

73. From: Christine Weiss <chrisw@muskox.alaska.edu>
    Date: Thu, 17 Nov 1994 09:28:56 -0900 (AST)
    Subject: Who will fund?
    Message-Id: <Pine.HPP.3.90.941117091241.9833A-100000@muskox.alaska.edu>

74. From: Carl Hage <chage@rahul.net>
    Date: Thu, 17 Nov 94 12:23:44 PST
    Message-Id: <9411172023.AA19431@slick.chage.com>
    Subject: Re: Cheap Public Access

75. From: Stan Witnov <74543.720@compuserve.com>
    Date: 18 Nov 94 02:33:42 EST
    Subject: FOUR DAY CONFERENCE THOTS
    Message-ID: <941118073341_74543.720_EHH62-2@CompuServe.COM>

76. From: Jawaid Bazyar <bazyar@netcom.com>
    Subject: Re: Need for Federal Oversight of Access and Availability
    Message-ID: <bazyarCzH7Lu.HoE@netcom.com>
    Date: Fri, 18 Nov 1994 18:34:41 GMT

77. From: howland@nsipo.nasa.gov
    Date: Wed, 23 Nov 1994 19:35:33 -0800
    Message-Id: <199411240335.TAA13844@noc.arc.nasa.gov>
    Subject: Re: [REDEFUS:253] REDEFUS digest 56

78. From: Martin Kessel <mkessel@world.std.com>
    Date: Wed, 23 Nov 1994 15:29:57 -0500
    Message-Id: <199411232029.AA16911@world.std.com>
    Subject: BNN Cablecast on Universal Access

79. From: Carl Hage <chage@rahul.net>
    Date: Tue, 15 Nov 94 05:21:42 PST
    Message-Id: <9411151321.AA18686@slick.chage.com>
    Subject: Redefining Universal Service and Open Access

80. From: Hubert Jessup, General Manager at BNN Television <bnn@world.std.com>
    Date: Thu, 17 Nov 1994 11:20:11 +0001 (EST)
    Subject: Need for on-going public access sites
    Message-Id: <Pine.3.89.9411171052.A20944-0100000@world.std.com>

81. From: Public Access Site <vcavail@latte.spl.lib.wa.us>
    Date: Wed, 23 Nov 1994 12:46:30 -0800 (PST)

Subject: Affordability
Message-Id: <Pine.OSF.3.91.941121204346.1399A-100000@latte.spl.lib.wa.us>

82. From: Henry Huang <hwh6k@fulton.seas.virginia.edu>
Date: Wed, 23 Nov 1994 12:52:37 -0500
Message-Id: <199411231752.MAA45745@fulton.seas.Virginia.EDU>
Subject: Some Thoughts on Public Access (and this Conference)

83. From: Sean <sconnell@silver.ucs.indiana.edu>
Subject: Re: [REDEFUS:155] REDEFUS digest 20
Message-Id: <199411182309.PAA21212@virtconf.digex.net>
Date: Fri, 18 Nov 1994 15:01:16 -0500 (EST)

84. From: Henry Huang <hwh6k@fulton.seas.virginia.edu>
Date: Tue, 15 Nov 1994 22:04:37 -0500
Message-Id: <199411160304.WAA57037@fulton.seas.Virginia.EDU>
Subject: Re: [AVAIL:1] NTIA Virtual Conference KeyNote Address

85. From: Henry Huang <hwh6k@fulton.seas.virginia.edu>
Date: Wed, 23 Nov 1994 12:52:37 -0500
Message-Id: <199411231752.MAA45745@fulton.seas.Virginia.EDU>
Subject: Some Thoughts on Public Access (and this Conference)

86. From: Carl Hage <chage@rahul.net>
Date: Thu, 17 Nov 94 23:00:22 PST
Message-Id: <9411180700.AA19595@slick.chage.com>
Subject: Comments on Susan G. Hadden Essay

87. The NTIA Virtual Archives are available via the World Wide Web at http://ntiaunix2.ntia.doc.gov:70/11s/virtual

88. See the opening speech by C. P. Snow in Management and the Computer of the Future, Martin Greenberger, MIT Press, 1962.

Chapter 15
Exploring New York City's Online Community: a Snapshot of Nyc.general

by Michael Hauben

Something new is gradually sneaking into every part of our world. The agent of change is the global computer communications network, "the full map of [which] no one knows; it changes every day"[1]. Not only is the change on a world scale, the Net is having local effects as well. Local social communities are being redefined more and more by the global online community. This is happening in New York City.

The topic of community is one of the themes which Sally Banes explores in her book, Greenwich Village 1963. Banes' study of this bohemian community at the beginning of the 1960s presents an interesting model with which to compare today's growing online community in the Big Apple. Community has traditionally been understood to mean a body of people who affiliate with one another based on family ties, location, shared religious practices and common work places.[2] There are, of course other definitions, such as that of historian Thomas Bender, who Banes says "prefers to reconceptualize community, suggesting that it is not a static social form that is disappearing, but rather that new, dynamic, overlapping forms of small-scale networks have arisen…."[3]

Bender proposes that it is important to examine the technological structure behind a community. The technological structure upon which today's online communities exist is that of the Internet. The Internet is the interconnection of smaller networks. As such, the Internet provides the glue which connects other networks together. This means by being on the New York State Education and Research Network (NYSERNET), I can send email from New York City to someone on a different network, for example Michnet in Michigan, because the networks automatically route my message from my network to the intended recipient's network through intermediate networks. As such, the global computer communications network consists of small-scale networks of computers (and in turn of people) connected to each other.

Banes' initial definition of community translates into saying people living in New York City are part of the community of New York City. As everyone knows, New York City is a large place. Yet people are proud to say they are from New York City and relate to things New York. New York can also be an isolated and alienating place, however. Thanks to developing technology, the contemporary concept of community in New York is evolving in ways similar to Bender's model leading to less isolation.

The '60s had the soapbox, the '90s have computer networks. People are communicating with other people both locally and globally in public discussion forums such as Usenet newsgroups and mailing lists and through private e-mail, forming in the process new communities of common interests. Before these communities became a reality, their possible benefits were envisioned by J. C. R. Licklider, along with Robert Taylor, in their paper, "The Computer as a Communications Device."[4] Bender's idea of ever-changing, overlapping communities is similar to what Licklider foresaw for social communities as a result of developments in computer communications. Already today, computer assisted networking allows groups to form to discuss an idea, focus in or broaden

out and reform to fit the new ideas that have resulted from the process.

In the new forms of communication technologies, the distinction between a stranger and a friend is becoming blurred. Strangers are no longer strange; rather they are people who might prove to be a valuable resource. One example of the public discussion areas is a Usenet newsgroup called New York City General or nyc.general (see the appendix for a partial listing of other New York City-related online resources). Following is only a little of what I found in one day's browsing, which represents about a week of discussion in this public space. Just a warning – you are about to witness a little of the composite of life in New York City.

"My boss is going to fire me," begins the first of the discussions I decided to read. The subject line read "Getting Unemployment," but the message left that as a last recourse. The person continued in the request for help, "What can I do? I'm not a minority or member of a protected group so that rules out the labor board, EEOC, etc.…. Could I find a lawyer to take the case on contingency? Else, how easy is it to get unemployment after being fired. No questions asked or do they give you the third degree? Thanks in advance!"[5]

A genuine problem was posted. As such, responses were likely to be sent by others, and indeed they were. The first public response went: "If you're being fired by your boss, and you've been on the job for a certain period of time (6 months possibly?), and you were being paid legally on the books, unemployment compensation is guaranteed. Just go to the unemployment office and do the bureaucracy dance."[6]

Conceivably neither the original poster nor the person who responded knew the other. The fact that these two are probably strangers and, before this point, totally unconnected could be why the response was posted publicly. The time and effort the person put into publicly responding potentially could be helpful to yet another person reading this discussion.

The next public response in sequence provided some clarification which could or could not be seen as being unfriendly. This man added that unemployment insurance could not be collected if that person was "fired for cause, such as stealing."[7]

The last public response this discussion I saved brought up the right of the boss to contest the granting of unemployment insurance. The response ends with some support: "It is just another long, tedious hassle to get you to give up and forget about it. But if you feel you deserve the unemployment benefits because he/she did not fire you with just cause, fight till the very end…. Good luck."[8]

All in all, these three public responses helped to define the previously tenuous concept of unemployment compensation held by the original poster. However, the picture is not complete. I am sure the person with the question, who could be reached via an e-mail through the Delphi online service, probably received private email with suggestions and comments which are not available as part of the public record of nyc.general.

What other things are discussed? Concerns about public living conditions – such as discussions about the past, present, and future of the subway system – happen on a regular basis. Even an employee of the Metropolitan Transportation Authority, who claimed to be acting in an unofficial capacity replied to questions and concerns about the subway. Nyc.general presents an open public forum where this person could talk about his job in a way he felt was helpful to many people. Such is not yet apparently true for any New York politicians entrusted to represent their constituency. However, such attempts are happening. Former Governor Cuomo ran a gopher information server

in his campaign for re-election, and New York State law and pending State Assembly bills will be online in the next few months. The currently proposed method is via telnet at assembly.state.ny.us.

Some examples of questions by people on how to survive in Manhattan include where to get cheap checking accounts (Amalgamated Bank of New York with true no-fee checking), what dentist or doctor to visit for particular problems, what rights tenants have, how and when to approach the Department of Motor Vehicles, and what's the best slice of pizza in town (one person voted for Koronet, while another voted for Famous Famiglia).

Other issues raised were not so cut and dried. The pros and cons of rent control were discussed in the following exchange: "Well, having just moved from the West Coast, I can tell you this about New York in general: there is no such thing as a nice place for a reasonable rent. This place is absurdly expensive – God only knows how rents can be so high in a place where roughly 10 million people live."[9] The first response was not much of a discussion, but would definitely start one. The person wrote in answer: "Two words: Rent control."[10] A second answer about rent control went like this: "Your solutions might be okay for the burbs, but this is New York you're talking about. These regulations were not the *cause* of high rents, they were enacted *because* of high rents. Removing them will harm the city in the short term and cause unpredictable results in the long term, as deregulation always does."[11]

In these and other cases, the open quality of debate and discussion on nyc.general make it not only a helpful neighborhood, but a living newspaper which both criticizes current newspapers and provides features. My next brief example is a post about the quality of the New York Times. The Subject of the message was "New York Times technology coverage." the poster argued: "No one should expect the NY Times…to cover underlying technology well – that's not their specialty. The Times is a general-interest paper."[12]

One of the responses was, "Sorry, they should do a better job. That they don't is an indication of the generally low level of scientific literacy in the U.S. Cutting them slack over stuff like this just reinforces this tendency."[13]

From this criticism of the New York Times, we go to an unusual experience that I could call a feature. The person wrote: "Reminds me when I was homeless and still had a valid VISA card which was maxed out. Apparently, between approximately 2:50AM and 4:25AM at night, Safeway stores would not check the validity of the transaction, and would just put it through. All the charges would show up on my VISA bill (which I never paid), and I would eat that day. It's funny because the bank decided that I needed a higher limit, and raised the limit twice, even after seven months of delinquency! My card wasn't canceled until one day I called and asked what the balance was – and a letter was promptly sent saying there was suspicious activity, and the card was thus canceled. Thank god I've since filled in the missing links between me and a job, and may even start making enough to pay past debts. Depends on a few factors…."[14]

These examples paint a picture of people today with a common interest, and only secondarily of a common location, making themselves available to be helpful to others with that interest. The obvious interest is life in New York City. These exchanges appear similar to both the Village Community presented in Greenwich Village 1963 and to Licklider's observations on on-line communities in the 1960s. Greenwich Village in 1963 was made up partially of a community of artists and intellectuals who "formed a constructed network, based on work, school, and other interests"[15]. Licklider asked the question, "What will on-line interactive communities be like?"[16]. He

answers by writing, “They will be communities not of common location, but of common interest.”[17]

The community life made available in Greenwich Village gave residents “the warmth of face-to-face, ‘authentic’ experience in the midst of escalating metropolitan anonymity”[18].

Villagers also felt a part of the community because people were active politically to protect their community from large structural changes which other organizations wanted to make happen[19]. The online examples both demonstrate a friendliness of a good neighborhood in the midst of an ever growing city, along with showing the active character. To be part of the online community one must become a part of the discussion, otherwise that which is discussed will be less helpful, and the online lurker will not be in touch with anyone else.

The examples of online activities are not provided to say there are no problems online, and I will not go into the whole phenomenon of flaming, but I feel the advantages are more important and overwhelm the disadvantages. I have presented a snapshot of a fairly new entity which is both making New York a much more friendly place and providing a forum for people of disparate beliefs to meet on equal grounds. In the end, online communications can help to enrich local community and community relations rather than diminish that ability. Taking a serious look at the actual dynamic of the communication displays the community of online New York City.

Notes for Chapter 15

1. Ithiel de Sola Pool, Technologies Without Boundaries: On Telecommunications in a Global Age, edited by Eli Noam, Cambridge, Massachusetts, 1990, p. 56.

2. Sally Banes, Greenwich Village 1963: Avant-Garde Performance and the Effervescent Body, Durham, North Carolina, 1993, p. 37.

3. Ibid.

4. J. C. R. Licklider and Robert W. Taylor, “The Computer as a Communication Device,” from In Memoriam: J. C. R. Licklider 1915-1990, Digital Research Center, Palo Alto, California, August 7, 1990. (Originally published in Science and Technology, April, 1968).

5. nyc.general, Message-ID: <B6009I1.sorter@delphi.com>

6. nyc.general, Message-ID: <mbayerCzvypp.187@netcom.com>

7. nyc.general, Message-ID: <3bg5nb$bbu@titan.imsi.com>

8. nyc.general, Message-ID: <3beb21$461@dockmaster.phantom.com>

9. nyc.market.housing, Message-ID: <3bdkcr$fn5@syko.cosmic.com>

10. nyc.market.housing, Message-ID: <3be4jp$8eo@apakabar.cc.columbia.edu>

11. nyc.general, Message-ID: <39jbfr$3bo@cmcl2.NYU.EDU>

12. nyc.general, Message-ID: <D07EM1.3H3@world.std.com>

13. nyc.general, Message-ID: <3bq5hp$s0a@nntp.Stanford.EDU>

14. nyc.general, Message-ID: <3bjcvl$i9l@panix3.panix.com>

15. Greenwich Village 1963, p. 78.

16. “The Computer as a Communication Device,” p. 37.

17. Ibid., p. 38.

18. Greenwich Village 1963, p. 15.

Appendix of New York City Online Resources

Addresses for most sites listed available at: http://www.columbia.edu/~hauben/nyc-guides.html.

I. PUBLIC DECENTRALIZED NEWSGROUPS

* nyc.* hierarchy – general, food, market.housing, jobs.*, politics, announce, seminars, singles, personals, transit, etc.
* ny.* hierarchy for State wide issues – general, for sale, wanted, seminars, etc.
* alt.sports.* – such as baseball.ny-mets, football.pro.ny-giants, etc.
* Moderated Newsfeed – clari.local.nyc, etc clari.* groups

II. PUBLIC LISTSERV’S AND MAILING LISTS

* ebikes – Metro NYC bicycle discussion list
* NYCOMNET – NY Community Networks lists
* NE-RAVES – electronic watercooler for Ravers
* Etc.

III. LOCAL NEWSGROUP HIERARCHIES

* panix.*
* dorsai.*
* mindvox.*
* Local hierarchies – serving other communities such as universities, etc.
* Etc. – All local and serving the community on the associated Internet providers. Usually only available on the particular system with which it is associated.

IV. INFORMATION SERVERS

* Gopher
  + Rutger’s Net Person’s Guide to NYC
  + CUNY graduate Center’s Guide to NYC
  + NYU’s New York City and Greenwich Village Communities
  + New York Book, Bike, and Art…from Panix
  + Echo’s Cool Stuff in NYC contributed by members of ECHO
  + Weather forecasts

* FTP
  + Lists of NYC Bookstores
  + Lists of NYC Record Stores
  + NYC Beer Guide

* WWW
  + Lists of WWW web sites in NYC
  + Theater on Broadway – listings
  + Dining Information and menus
  + Web sites for performance spaces (Kitchen, Knitting Factory)
  + Mediabridge.com's NYC "Tourist" Info (previously Columbia CS Department)
