

# 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.<sup>1</sup> 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 Communications 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.”<sup>2</sup>

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.”<sup>3</sup>

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.”<sup>4</sup>

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 Peninsula 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?”<sup>5</sup> 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 technology 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.”<sup>6</sup>

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.”<sup>7</sup>

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....”<sup>8</sup>

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 Superhighways 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.”<sup>9</sup>

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.<sup>10</sup>

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.”<sup>11</sup>

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.”<sup>12</sup>

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.<sup>13</sup> 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 essence, 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 2<sup>nd</sup> & 3<sup>rd</sup> 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.”<sup>14</sup>

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 algorithmed, 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.”<sup>15</sup>

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.’”<sup>16</sup>

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.”<sup>17</sup>

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

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.

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#### Notes for Chapter 11

1. "The Computer in the 21<sup>st</sup> 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, opnaces, 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 Affordability and 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: <81430000.0000000006A.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](mailto: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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