

# Epilogue

## Is this a New Era?

by Jay Hauben  
[hauben@columbia.edu](mailto:hauben@columbia.edu)

### I. Sequel to the *Netizens* Book: Remembering Lewis Henry Morgan's *Ancient Society*

I want to tell a little story and ask a question.

At a meeting discussing the new book being worked on as a sequel to *Netizens: On the History and Impact of Usenet and the Internet*, I made an observation. This new book needs an analytical framework, a guiding idea that helps us pick what articles to put into the book and how to tie them together so the reader sees what we are trying to document and understand.

As an example of such a guiding analysis, I recalled that Lewis Henry Morgan, an American anthropologist in his 1877 book *Ancient Society*, saw human society unfolding through a number of stages. In particular he saw that human society could not enter the higher stage of civilization until the smelting of iron was invented.<sup>1</sup>

I was remembering where Morgan had written, "The production of iron was the event of events in human experience. Out of it came the metallic hammer and anvil, the axe and the chisel, the plough with an iron point, the iron sword; in fine, the basis of civilization, which may be said to rest upon this metal. The want of iron tools arrested the progress of mankind in barbarism."

Ronda Hauben, one of the authors working on the new book, thought that such a breakthrough is what the invention of the internet and the emergence of the netizen represents for our time. She argued that many great things have happened but the advance of democracy has been stuck. With the emergence of the net and the netizens, human society can now move ahead with greater democracy and the means to solve problems that have been unsolvable for a long time.

I thought it is the reverse. There was a great worldwide democratic movement in the second half of the twentieth century as witnessed by the 1968 outburst of demands for more democracy in Paris, NYC, Prague, Tokyo, Mexico City and in other places around the world. Then again in 1987 in South Korea, 1988 in Burma, followed in 1989 in China and then Eastern Europe. Perhaps that movement was even seen more recently with the Arab Spring and Occupy Wall Street. The emergence of the Net and the Netizen is the continuation of that movement and they are its product.

Ronda said that we have an interesting disagreement. But isn't Michael Hauben's article, "Participatory Democracy From the 1960s and SDS into the Future Online"<sup>2</sup> an argument that SDS, the 1960s group in the US, Students for a Democratic Society, could not succeed because it lacked a communication network for the realization of full participation of the members of society in the

decisions that affect their lives?

I was struck by this comparison with Michael's analysis and Morgan's and decided to read Michael's paper more carefully.

## II. SDS and Democracy's Need for a Communications Network

Michael begins his essay on SDS appearing to agree with me. He writes, "The emergence of the personal computer in the late 70s and early 80s and the longer gestation of the new forms of people-controlled communication facilitated by the Internet and Usenet in the late 80s and today are the direct descendants of 1960s."

Michael found in the *Port Huron Statement* (1962),<sup>3</sup> that SDS saw that people were tired of the problems and were yearning for change but politics had become a spectator sport. Something new was needed, a more participatory democracy. SDS sought "the establishment of a democracy of ... participation governed by two central aims: that the individual share in those social decisions determining the quality and direction of his life; [and] the society be organized to ... provide the media for their common participation. ... [C]hannels should be commonly available to relate men to knowledge and to power so that private problems are formulated as general issues." It was necessary "to make the human being whole by becoming an actor in history instead of just a passive object. Not only as an end in itself, but as a means to change, the idea of participatory democracy was our central focus."<sup>4</sup>

Michael quotes Al Haber, first SDS national officer, "The challenge ahead is to appraise and evolve radical alternatives to the inadequate society of today, and to develop an institutionalized communication system that will give perspective to our immediate actions. We will then have the groundwork for a radical student movement in America." Haber and Tom Hayden, author of the first draft of the *Port Huron Statement*, understood SDS to be this, "a national communications network."

But Michael analyzes that SDS could not be sustained. He writes, "While many people made their voices heard and produced a real effect on the world in the 1960s, lasting structural changes were not established. The real problems outlined earlier continued in the 1970s and afterwards. A national, or even international, public communications network needed to be built to keep the public's voice out in the open."

Today, an international, public communications network and the netizens exists. Will human society now make accelerated progress? Is Ronda correct that this is a new era?

## III. Is a Revolution in Human Communications Happening?

Maybe we can see in his writings how Michael thought about this.

I will briefly look at two of Michael's articles, "The Computer as a Democratizer"<sup>5</sup> and "The

Expanding Commonwealth of Learning: Printing and the Net"<sup>6</sup> about the printing press.

In "The Computer as a Democratizer" Michael writes, "The computer connects to th[e] democratizing trend through facilitating wider communications among individual citizens to the whole body of citizens." To understand what is needed for democracy to work, he studied an essay by James Mill, "Liberty of the Press" written in 1825. From Mill, Michael saw the necessity of an uncensored press "to keep watch on government in order to make sure this government works in the interest of the many." Mill champions freedom of the press, "as a realistic alternative to Rousseau's general assembly, which is not possible most of the time."

Now most people can have an "information access and broadcast station in their very own home." They can participate "in debates with others around the world, search for data in various data banks, post an opinion or criticism for the whole world to see." To Michael, it is a leap not only to have access to information but also to be able to broadcast. He writes, "These systems begin to make possible some of the activity James Mill saw as necessary for democracy to function... more oversight over government and a more informed population." Also, with the Net and the netizens, a new public space is opening up which can serve as an assembly of the whole people. Michael saw that the computer and the Net remove some of the obstacles to democracy. And I add make possible a more participatory democracy.

But is the emergence of the Net and the Netizen a revolutionary development?

To answer this question, Michael studied the history of the impact of the invention and spread of the printing press. The modern printing press was developed in the middle and late 15th Century. It quickly replaced the 2000 year old scribal culture surrounding hand copying of texts out of which it grew. Michael writes that "This scribal culture could only go so far in furthering the distribution of information and ideas. Texts existed, but were largely unavailable for use by the common people"

The printing press and the culture that grew up with it broke through barriers which had previously limited the production of books. "The broad distribution of presses ... ushered in the age of printing" which accelerated the Enlightenment. "The printing press facilitated the meeting of minds pursuing intellectual pursuits. The interconnection of people led to the quickening of the development of ideas and knowledge. These progenitors of the printing trade were in the forefront of the sweeping intellectual changes which the presses made possible." Michael agrees with Elizabeth Eisenstein the author he was reading, that the impact of the printing press was revolutionary not evolutionary.

Jumping to the present, Michael writes, "Just as the printing press essentially replaced the hand-copying of books in the Renaissance, people using computer networks are essentially creating a new method of production and distribution of creative and intellectual written works today." Besides making distribution and communication more universal, cheaper and easier, netizens are building the Net "from a connection of computers and computing resources into a vast resource of people and

knowledge." ~~Their activity has opened a new kind of public space accessible to all, inviting and encouraging participation by ordinary people in all the questions and potentially all the decisions of society. This public space is separate from either commercial purposes or religious or political limitations or ideas. The net is the "poor people's" public space and the poor people's media.~~

Michael concludes that, like in the age of the printing press, "we, too, are in an age of amazing changes in communications technologies, and it is important to realize how these changes are firmly based on the extension of the development of the printing press which took place in the fifteenth and sixteenth centuries." But he also tells us that "understanding how the printing press unleashed a communications revolution provides a basis to assess if the establishment of worldwide computer communication networking is the next communication revolution." His essay raises the question, are the net and the netizens continuing the important social revolution that the printing press had begun? The first sentence of his essay answers:

"A revolution in human communications is happening."

Back to my question, is Ronda's insight that we are entering into the Era of the Netizen correct? I would say it is hard to know. The net and the netizens are only recent developments. Also, we are in the middle of something very big. It is hard to see its full meaning and impact. I do not know what has been so strongly holding democracy back so cannot really know if the net and the netizens have broken it. I think Michael's thinking was moving in that direction.

As for my thinking, I can say I hope we will see more democracy. If pressed I would say my guess is that the Net and the netizens are ushering in a new era, the Era of the Netizen.

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Notes:

<sup>1</sup> *Ancient Society*, page 42: "When the barbarian, advancing step by step, had discovered the native metals and learned to melt them in the crucible and to cast them in moulds; when he had alloyed native copper with tin and produced bronze; and, finally, when by a still greater effort of thought he had invented the furnace, and produced iron from the ore, nine-tenths of the battle for civilization was gained. Furnished with iron tools, capable of holding both an edge and a point, mankind were certain of attaining to civilization. The production of iron was the event of events in human experience, without a parallel, and without an equal, beside which all other inventions and discoveries were inconsiderable, or at least subordinate, Out of it came the metallic hammer and anvil, the axe and the chisel, the plough with an iron point, the iron sword; in fine, the basis of civilization, which may be said to rest upon this metal. The want of iron tools arrested the progress of mankind in barbarism. There they would have remained to the present hour, had they failed to bridge the chasm. It seems probable that the conception and the process of smelting iron ore came but once to man. It would be a singular satisfaction could it be known to what tribe and family we are indebted for this knowledge, and with it for civilization. The Semitic family were then in advance of the Aryan, and in the lead of the human race. They gave the phonetic alphabet to mankind and it seems not unlikely the knowledge of iron as well." <http://www.marxists.org/reference/archive/morgan-lewis/ancient-society/ch03.htm> <sup>2</sup> Available online at: <http://www.columbia.edu/~hauben/CS/netdemocracy-60s.txt>

<sup>3</sup> SDS, "Port Huron Statement", as found in James Miller, *Democracy in the Streets*, Simon and Schuster, New York, 1987 Pp. 329-374.

<sup>4</sup> *Ibid*, note ii. Quotes are from Miller pages 333, 144, and 374.

<sup>5</sup> Available online at <http://www.columbia.edu/~rh120/ch106.x18>

<sup>6</sup> Available online at <http://www.columbia.edu/~rh120/ch106.x16>

# Appendix

MATT JONES

## We Are All Netizens Now

<http://mattjon.es/blog/2013/11/we-are-all-netizens-now>

This post was originally published in June 2012 on another blog of mine.

The Net means personal power in a world of little or no personal power (other than those on the top – who are called powerful because of money, but not because of thoughts or ideas). The essence of the Net is Communication, of personal communication between individual people, and between individuals and those who in society who care (and do not care) to listen.

Michael Hauben What the Net Means to Me

The quote above is taken from an article written 1994, a few years after the invention of the Web and about 14 years before the mass-participation in social media networking sites.

Michael Hauben was an educationalist and researcher who enthused about the empowering nature of the Net as far back as the early eighties. Back then the Net was the collective name for Bulletin Board Systems (BBS), USENET and Email – all distributed electronic communication systems that were accessed through a dial-up connection to non-commercial computer networks.

These were the social networks of the day; not just bringing people together through the sharing of knowledge, but as ‘Netizens’ – a term coined by Hauben – people were using the network to unite for political change.

Of course, the people using the Net back then were a small minority and largely based in the US. You needed expensive hardware and the technical wherewithal to connect to the network, so if you were a Netizen, you were likely to be either associated with a University or work in the telecommunications industry.

Twenty-five years later and now a Netizen is just as likely to be someone under siege by their own government, communicating to the world via Twitter or Facebook about the injustices being inflicted on them by their unelected leaders.

But at the same time as the barriers to participation are being smashed down, we have the specter

of control of the Net by both national governments and multinational content owning companies, as well as deep concerns of privacy violations by the same social networks that have enabled the mass-participation in the first place.

These days, the Web is less like a web of connected information (as Tim Berners-Lee envisioned it), and more like nebulous cloud in which great things are being created but there's also potential for tumult and annihilation.

These issues come at a time when web technology has matured to the point where the open standards of the web can be used to deliver powerful content and tools for democracy to people connected to the network via their phones or other inexpensive hardware.

To look to the future we sometimes have to look to see how things were in the past. Michael Hauben's vision of the Net in the 80s concerned personal freedom, empowerment and democracy on distributed networks; making the technology work for us.

Every day, we play in the walled gardens of Twitter, Facebook, iOS, Google and Amazon; access is easy but we have neither freedom or privacy there. We are mostly oblivious to this, or at least happy to sacrifice our rights for the convenience of connecting with our friends or buying an eBook with one click.

The Net can offer so much more to society than this, but it's up to us as Netizens to make it.

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## Netizenry as the Fifth Estate

[wordweaver](#) / [May 30, 2013](#)

As a mass communications student in the eighties, I was educated with the intimidating thought that I would be joining the rank of the members of the “fourth estate,” a reference to the legitimate practitioners of the print and broadcast media. The prestige attached to that title was one that was both awe-inspiring and daunting, knowing the vast power that mass media wielded in the scheme of politics and nation-building.

Little did I know that more than two decades later, with or without the bachelor’s degree, I would be counted as one of scores of millions of people belonging to the cybercitizenry the world over, armed only with a computer or smartphone, and a wifi connection.



When American pioneer on internet studies, Michael Hauben first coined the portmanteau “netizen” (from the words internet and citizen) in the nineties, he theorized an emerging societal force that can safeguard democracies with the increasing availability and popularity of the internet. Hauben died in 2001 without seeing the phenomenal rise to power of netizenry as a socio-political and cultural force to reckon with. It can arguably claim the ambiguous rank of the “fifth estate” to include the bloggers and all avid users of the internet.

Watchdogging governments used to be the calling of mainstream media, priding themselves with the monicker “free press.” Civil society later joined the elite guardians of democracy, although its composition had the clerical blessing and backing of the church, an independent pillar in itself, but one of three Estates under the French Monarchy in the olden times. Politics continue to evolve since the radical idea espoused by French political thinker Baron de Montesquieu during the Age of Enlightenment that the administrative branches of government – executive, judiciary and legislative – should stay separate from and at the same time dependent on one another to maintain a balance of power.

Nowadays, netizens hardly need prodding to rally for an issue or cause, or even to go out in the streets, like in the civil society days of public protests. They virtually come in staggering numbers from the comfort and safety of their homes by posting comments, liking and sharing files in cyberspace. All they need is a stimuli – celebrities having a scuffle at the airport, political TV ads offending the public intellect, and just about anything from the mundane to the lollapalooza – that their senses can perceive in a strongly offensive way, instigating a social interaction that can instantly go viral.

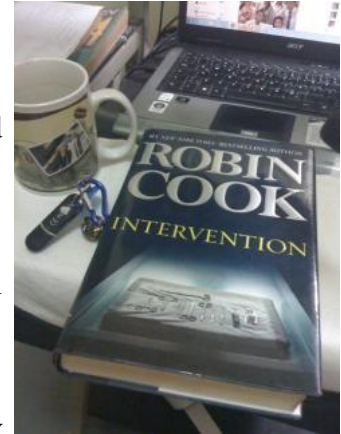


And when it did go viral, “all hell broke loose.” Netizens’ campaign would instantly go berserk, if not contained. Calling in the anti-riot squad would probably not be an exaggeration in some unforeseen cases given the immense power of the netizenry phenomenon. A close example is last year’s #Amalayer viral video that is now history, but not after the antagonistic young woman has gotten her dose of cyberbullying. The netizenry did not relish her rude and arrogant verbal assault on a lady guard, thus ganged up on her with a conflagrative hate campaign.

On heaven’s side, a candid photo of a young streetboy, sneaking into a bookstore, also in Manila just recently, to read in a corner his favorite “Ang Pagong at ang Matsing” (“The Tortoise and the Monkey”) fable, went viral, too and became the destitute boy’s ticket to fame and good fortune. A number of philanthropists has come forward in their desire to help put the boy to school.



Still trending in social media sites is the fiasco that comedy bar gay talent Vice Ganda, now a top TV



and movie personality, got himself into when he made the butt of his toilet humor during his own concert a highly-respected Filipina journalist and TV news executive, Jessica Sojo, for her excessive weight and femininity, both lampooned unrestrainedly with the tasteless “gang rape” punchline by the comedian. Within days, Vice Ganda was quick to express regret for

the incident, with Jessica slightly hinting about the lack of purity of intention by bringing that wish to the forefront of the much-publicized apology. Had he allowed pride and arrogance to take their sweet time, Vice Ganda would be black and blue from cyberbullying. His racist diatribe against newly-proclaimed senator and daughter of the Philippines’ vice-president is another item that netizens recently feasted on.

Netizens do not rest. They are full-time cyber armies protecting the people’s morals, ideals, and democratic beliefs. Paradoxically, left on their own, without knowing the full potential of their innate power, netizens can destroy the very same ideals that they should be guarding.

Virtually operating 24/7 in the free world, netizens may just lay claim righteously to the fanciful “fifth estate” title for being vigilant watchdogs of cyberspace where all the world is connected. The Hauben word has come of age.

# Tariq's Take

## meditations on technology, culture and the sublime

[http://www.tariqwest.com/2010/03/26/what-does-citizenship-look-like-online/#.U\\_Qfj2O8Nvd](http://www.tariqwest.com/2010/03/26/what-does-citizenship-look-like-online/#.U_Qfj2O8Nvd)

## What does it mean to be a netizen?

[March 26, 2010](#)

Back in December in a post on the [Open Government Directive](#), social media expert [Steve Radick](#) wrote, "The rights and responsibilities of U.S. citizenship are changing, and we [government practitioners] need to be educated—at every level—on how and why to engage through open government channels." This resonated with me: **What does citizenship look like in the age of the internet? What new citizen "duties" are emerging on the social web?**

When I think of citizenship on the web, it is not in the conventional "national citizen" sense. Rather, citizenship takes on a broader, and perhaps equally important, meaning: internet citizens ("[netizens](#)" as Michael Hauben dubbed us) are people who have a stake in the evolving content and character of the web.

In this sense, internet users are citizens in a world of ideas, participants in an ongoing knowledge and value (in the "societal values" sense) creation experiment. Although language, technology access and literacy, and censorship still represent barriers for some, the conversation is increasingly global.

The on-line world is a [democratic space](#). People "vote" in this space by consuming, responding to (e.g. by commenting on blogs), sharing, promoting (e.g. within ranking systems like Digg) and creating content. Like more traditional democratic spaces, the web favors those who engage, those who say and do things, over those who do not; people who engage have a say in shaping the online world. It's worth noting that, like other democratic spaces, some have more influence, "more of a vote", than others because of structural and [other factors](#) (e.g. what sites a search engine ranking algorithm favors).

The Internet is [saturated with information](#) (too much for any one individual to sort through) and crowded with [competing narratives](#); the information and narratives that bubble up to the top become public "knowledge". The content that surfaces (e.g. the first page of Google results on a given topic) might be taken to represent a sort of consensus on what is "valuable", maybe even what's "true".

With this in mind, I posit that engagement on the internet is perhaps, like [civic engagement](#) in the off-line world, a "duty" of citizenship. If we want our values to be reflected in the presiding culture, if we want the best information to rise to the top, we have to assert ourselves through all of the mechanisms available to us.

While many consume content, fewer share it and fewer yet, actively curate or create it. This worries me. Why? Because many quarters of the internet are effectively "[dictatorships of the loud](#)" – people who create content often and are good at promoting it, disproportionately impact the conversation regardless of how sound their ideas are. The [inane or fluffy](#) often wins out over the useful or profound.

I started writing not because I'm the most expert person on many of the subjects I write on, but because I'm not the least – I'm trying to drown out the one guy dumber than me. And I'm not just blogging; I'm scouring the internet for [ideas that represent our best values](#) and promoting them; I'm seeking out [bull and blasphemy](#) and calling it out for what it is. I figure It's the least I can do to help shape the Internet, and the World.

What do you think, what does it mean to be a 'netizen'?

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This post is featured on:

[The Daily Get Up](#), [Brazen Careerist](#)

## My Thinking on Netizens

by Xu Liang, May 1, 2012

In 1999, when I went to college, it was the first time for me to touch the internet. I still remember clearly the experience that day. I carefully got access into a website and browsed some news. Later I registered an email address and sent my first email. Afterwards I learned to chat online. The first time is always very fresh and exciting. But after the excitement diminished, I thought that the internet did not change our lives as much as what was described by others. I still remember I told my roommate disappointedly, he was an amateur for computer, that the internet could not do any more than email and browsing news. I admitted that the internet did make our lives much more convenient and more fast than before, but it just substituted for the role of newspapers, radios, and televisions. These inventions did not change the historical trail, neither did the internet. This was my opinion at that time.

In recent years, with the popularization of the internet, the internet was more and more necessary in our lives. I roughly spend a quarter of a day on internet. What is more important, we witness the power of the internet and social media in some big things, like the high speed railway crash in China, Arabic Spring, Occupy Wall Street movement and so on. I gradually realized that I underestimate the impact of the internet before. I am not sure if the internet will change the trail of human history, but I am sure that the internet does change the structure and management of human society. Why? First, the internet gives us another spacious space. In the cyber space, the demarcation of nations, classes, parties, groups and professions becomes vague. Identities and status of people are not set by the society. Second, the internet gives us another source of power. This power is not less than the invention of the atomic bomb. But the internet is different from the atomic bomb. The latter can be monopolized by a few people. The former should be shared by everyone. Actually, the bigger the power is, the fewer people have the atomic weapons, while the bigger the power is, the more people share the internet. Each internet user is both a source and a holder of the power. With great power comes great responsibility. In tradition, a few elites manage the society and make decisions. Now everyone can participate in the management and influence the decision-making process.

Let me go back to Michael and Ronda's book, *Netizens*. I have to admit the book is very visionary. It was not just because it foresaw the drastic social changes brought by the internet in the early 1990s before I touched the internet, but what is more important is that the book offers us a blueprint for our future society based on the internet, that is the netizen.

What is the netizen? According to the Haubens' introduction to me, the netizen does not equate to the internet user. Only those internet users who abide by a set of moral norms and do good things are netizens. The Haubens imagine that the netizens would be the mainstream in the cyber society and it would give birth to a good and equal society in reality which would break away from the traditional minority-ruling-majority model. Marx and many Communists once tried to construct

such a perfect society. They failed in practice. The internet and netizen probably provide a technological tool and a different way to realize the dream. This is our best wish.

However, we also should know it is a long way for the theory applying to the practice. The formation of the civil society in the real world tells us we can not expect a netizen society would form very soon. Like civil society is based on the rule of law, the

netizen also should be based on a set of norms. But the formation of norms must be a free, open and voluntary process. Any government and organization should not make out such norms in the name of netizens, or the netizen society would repeat the tradition model.

## Researching the "Net": A talk on The Evolution of Usenet News and The Significance of the Global Computer Network\*

by Michael Hauben

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. Virtually you live next door to every other single Netizen in the world. Geographical separation is replaced by existence in the same virtual space.

The situation I describe is only a prediction of the future, but a large part of the necessary infrastructure currently exists. The Net - or the Internet, BITNET, FIDOnet, other physical networks, Usenet, VMSnet, and other logical networks and so on - has rapidly grown to cover all of the developed countries in the world. Every day more computers attach to the existing networks and every new computer adds to the user base - at least twenty five million people are interconnected today. Why do all these people pass their time sitting in front of a computer typing away? They have very good reason to! Twenty five million people plus have very good reason not to be wrong.

We are seeing a revitalization of society. The frameworks are being redesigned from the bottom up. A new more democratic world is becoming possible. According to one user, the Net has "immeasurably increased the quality of ... life." The Net seems to open a new lease on life for people. Social connections which were never before possible, or which were relatively hard to achieve, are now facilitated by the Net. Geography and time no longer are boundaries. Social limitations and conventions no longer prevent potential friendships or partnerships. In this manner Netizens are meeting other Netizens from far-away and close by that they might never have met without the Net.

A new world of connections between people - either privately from individual to individual or publicly from individuals to the collective mass of many on the net - is possible. The old model of central distribution of information from the Network Broadcasting or Publication Company is being questioned and challenged. The top-down model of information being distributed by a few for mass-consumption is no longer the only News. Netnews brings the power of the reporter to the Netizen. People now have the ability to broadcast their observations or questions around the world and have other people respond. The computer networks form a new grassroots connection that allows the excluded sections of society to have a voice. This new medium is unprecedented. Previous grassroots media have existed for much smaller sized selections of people. The model of the Net proves the old way does not have to be the only way of networking. The Net extends the idea of networking - of making connections with strangers that prove to be advantageous to one or both parties.

The complete connection of the body of citizens of the world that the Net makes possible does not exist as of today, and it will definitely be a fight to make access to the Net open and available to all. However, in the future we might be seeing the possible expansion of what it means to be a social animal. Practically every single individual on the Net today is available to every other person on the Net. International connection coexists on the same level with local connection. Also the computer networks allow a more advanced connection between the people who are communicating. With computer-communication systems, information or thoughts are connected to people's names and electronic-mail addresses. On the Net, one can connect to others who have similar interests or whose thought processes they enjoy.

Netizens make it a point to be helpful and friendly - if they feel it to be worthwhile. Many Netizens feel they have an obligation to be helpful and answer queries and follow-up on discussions to put their opinion into the pot of opinions. Over a period of time the voluntary contributions to the Net have built it into a useful connection to other people around the world. The Net can be a helpful medium to understand the world. Only by seeing all points of view can any one person attempt to figure out either their own position on a topic or in the end, the truth.

Net Society differs from off-line society by welcoming intellectual activity. People are encouraged

to have things on their mind and to present those ideas to the Net. People are allowed to be intellectually interesting and interested. This intellectual activity forms a major part of the on-line information that is carried by the various computer networks. Netizens can interact with other people to help add to or alter that information. Brain-storming between varieties of people produces robust thinking. Information is no longer a fixed commodity or resource on the Nets. It is constantly being added to and improved collectively. The Net is a grand intellectual and social commune in the spirit of the collective nature present at the origins of human society. Netizens working together continually expand the store of information worldwide. One person called the Net an untapped resource because it provides an alternative to the normal channels and ways of doing things. The Net allows for the meeting of minds to form and develop ideas. It brings people's thinking processes out of isolation and into the open. Every user of the Net gains the role of being special and useful. The fact that every user has his or her own opinions and interests adds to the general body of specialized knowledge on the Net. Each Netizen thus becomes a special resource valuable to the Net. Each user contributes to the whole intellectual and social value and possibilities of the Net. -

## II. Licklider, the Visionary

The world of the Netizen was envisioned some twenty five years ago by J.C.R. Licklider and Robert Taylor in their article "The Computer as a Communication Device" (Science and Technology, April 1968). Licklider brought to his leadership of the US Department of Defense's Advanced Research Projects Agency (ARPA) a vision of "the intergalactic computer network." Whenever he would speak of ARPA, he would mention this vision. J.C.R. Licklider was a prophet of the Net. In his article Licklider establishes several helpful principles which would make the computer play a helpful role in human communication. These principles were:

- 1) Communication is defined as an interactive creative process.
- 2) Response times need to be short to make the "conversation" free and easy.
- 3) The larger network would form out of smaller regional networks.
- 4) Communities would form out of affinity and common interests.

Licklider focused on the Net comprising of a network of networks. While other researchers of the time focused on the sharing of computing resources, Licklider kept an open mind and wrote:

"...The collection of people, hardware, and software the multi-access computer together with its local community of users - will become a node in a geographically distributed computer network.....Through the network, therefore, all the large computers can communicate with one another. And through them, all the members of the supercommunity can communicate - with other people, with programs, with data, or with a selected combinations of those resources." (32)

Licklider's understandings from his 1968 paper have stood the test of time, and do represent what the Net is today. His concept of the sharing of both computing and human resources accurately describes today's Net. The networking of various human connections quickly forms, changes its goals, disbands and reforms into new collaborations. The fluidity of such group dynamics leads to a quickening of the creation of new ideas. Groups can form to discuss an idea, focus in or broaden out and reform to fit the new ideas that have resulted from the process.

The virtual space created on non-commercial computer networks is accessible universally. This space is accessible from the connections that exist; whereas social networks in the physical world generally are connected only by limited gateways. So the capability of networking on computer nets overcomes limitations inherent in non-computer social networks. This is important because it reduces the problems of population growth. Population growth no longer means limited. Rather that very growth of population now means an improvement of resources. Thus growth of population can be seen as a positive asset. This is a new way of looking at people in our society. Every new person can mean a new set of perspectives and specialties to add to the wealth of knowledge of the world. This new view of people could help improve the view of the future. The old model looks down on population growth and people as a strain on the

environment rather than the increase of intellectual contribution these individuals can make. However, access to the Net needs to be universal for the Net to fully utilize the contribution each person can represent. Once access is limited, the Net and those on the Net lose the full possible advantages the Net can offer. Lastly the people on the Net need to be active in order to bring about the best possible use of the Network.

Licklider foresaw that the Net allows for people of common interests, who are otherwise strangers, to communicate. Much of the magic of the Net is the ability to make a contribution of your ideas, and then be connected to utter strangers. He saw that people would connect to others via this net in ways that had been much harder in the past. Licklider observed as the ARPANET spanned two continents. This physical connection allowed for wider social collaborations to form. This was the beginning of Computer Data networks facilitating connections of people around the world.

My research on and about the Net has been and continues to be very exciting for me. When I posted my inquiries, I usually received the first reply within a couple of hours. The feeling of receiving that very first reply from a total stranger is always exhilarating! That set of first replies from people reminds me of the magic of E-Mail. It is nice that there can be reminders of how exciting it all is - so that the value of this new use of computers is never forgotten.

### III. CRITICAL MASS

The Net has grown so much in the last 25 years, that a critical mass of people and interests has been reached. This collection of individuals adds to the interests and specialties of the whole community. Most people can now gain something from the Net, while at the same time helping it out. A critical mass has developed on the net. Enough people exist that the whole is now greater than any one individual and thus makes the Net worthwhile to be part of. People are meshing intellects and knowledge to form new ideas. Larry Press made this clear by writing:

"I now work on the Net at least 2 hours per day. I've had an account since around 1975 but it has only become super important in the last couple of years because a critical mass of membership was reached. I no longer work in LA, but in cyberspace."

Many inhabitants of the Net feel that only the most technically inclined people use the Net. This is not true, as many different kinds of people are now connected to the Net. While the original users of the Net were from exclusively technical and scientific communities, many of them found it a valuable experience to explore the Net for more than just technical reasons. The nets, in their early days, were only available in a few parts the world. Now however, people of all ages, from most parts of the globe, and of many professions, make up the Net. The original prototype networks (e.g.: ARPAnet in the USA, NPL in the United Kingdom, CYCLADES in France and other networks around the world) developed the necessary physical infrastructure for a fertile social network to develop. Einar Stefferud wrote of this social connection in an article,

"The ARPANET has produced several monumental results. It provided the physical and electrical communications backbone for development of the latent social infrastructure we now call 'THE INTERNET COMMUNITY.'" (ConneXions, Oct. 1989 vol 3 No. 10. pg.21)

Many different kinds of people comprise the Net. The University Community sponsors access for a broad range of people (students, professors, staff, professor emeritus, and so on). Programmers, engineers and researchers from many companies are connected. A K-12 Net exists within the lower grades of education which helps to invite young people to be a part of our community. Special Bulletin Board software (for example Waffle) exists to connect Personal Computer users to the Net. Various Unix bulletin board systems exist to connect other users. It is impossible to tell exactly who connects to public bulletin board systems, as only an inexpensive computer (or terminal) and modem are required to connect. Many common bulletin board systems (for example fido board) have at least e-mail and many also participate through a gateway to Netnews. Prototype Community Network Systems are forming around the world (e.g.: In Cleveland - the Cleveland Freenet, In New Zealand - the Wellington Citynet, In California, the Santa Monica Public Electronic Network, etc) Access via these community systems can be as easy as visiting the



community library and membership is open to all who live in the community.

In addition to the living body of resources this diversity of Netizens represent, there is also a continually growing body of digitized data that forms a set of resources. Whether it is Netizens digitizing great literature of the past (e.g.: the Gutenberg Project), or it is people gathering otherwise obscure or non-mainstream material (e.g.: Various Religions, unusual hobbies, fringe and cult materials, and so on), or if it is Netizens contributing new and original material (e.g.: the Amateur Computerist Newsletter), the net follows in the great tradition of other public bottom-up institutions, such as the public library or the principle behind public education. The Net shares with these institutions that they serve the general populace. This data is just part of the treasure. Often living Netizens provide pointers to this digitized store of publicly available information. Many of the network access tools have been programmed with the principle of being available to everyone. The best example is the method of connecting to file repositories via FTP (file transfer protocol) by logging in as an "anonymous" user. Most (if not all) World Wide Web Sites, Wide Area Information Systems (WAIS), and gopher sites are open for all users of the Net. It is true that the current membership of the Net Community is smaller than it will be, but the net has reached a point of general usefulness no matter who you are.

All of this evidence is exactly why there could be problems if the Net comes under the control of commercial entities. Once commercial interests gain control, the Net will be much less powerful for the ordinary person than it is currently. Commercial interests vary from those of the common person. They attempt to make profit from any available means. Compuserve is an example of one current commercial network. A user of Compuserve pays for access by the minute. If this scenario would be extended to the Net of which I speak, the Netiquite of being helpful would have a price tag attached to it. If people had had to pay by the minute during the Net's development, very few would have been able to afford the network time needed to be helpful to others.

The Net has only developed because of the hard work and voluntary dedication of many people. It has grown because the Net is under the control and power of the people at a bottom-level, and because these people have over the years made a point to make it something worthwhile. People's posts and contributions to the Net have been the developing forces.

#### IV. Network as a New Democratic Force

For the people of the World, the Net provides a powerful way of peaceful assembly. Peaceful Assembly allows for people to take control over their lives, rather than that control being in the hands of others. This power has to be honored and protected. Any medium or tool that helps people to hold or gain power is something that is special and has to be protected. (See "The Computer as Democratizer", Amateur Computerist Newsletter, Vol 4, No 5, Fall 1992)

J.C.R. Licklider believed that access to the then growing information network should be made ubiquitous. He felt that the Net's value would depend on high connectivity. In his article, "The Computer as a Communication Device", Licklider argues that the impact upon society depends on how available the network is to the society as a whole. He wrote:

"For the society, the impact will be good or bad depending mainly on the question: Will 'to be on line' be a privilege or a right? If only a favored segment of the population gets a chance to enjoy the advantage of 'intelligence amplification,' the network may exaggerate the discontinuity in the spectrum of intellectual opportunity."

The Net has made a valuable impact to human society. I have heard from many people how their lives have been substantially improved via their connection to the Net. This enhancement of people's lives provides the incentive needed for providing access to all in society. Society will improve if net access is made available to people as a whole. Only if access is universal will the Net itself truly advance. The ubiquitous connection is necessary for the Net to encompass all possible resources. One Net visionary responded to my research by calling for universal access. Steve Welch wrote:

"If we can get to the point where anyone who gets out of high school alive has used computers to

communicate on the Net or a reasonable facsimile or successor to it, then we as a society will benefit in ways not currently understandable. When access to information is as ubiquitous as access to the phone system, all hell will break loose. Bet on it."

Steve is right, "all hell will break loose" in the most positive of ways imaginable. The philosophers Thomas Paine, Jean Jacques Rousseau, and all other fighters for democracy would have been proud.

Similar to past communications advances such as the printing press, mail, and the telephone, the Global Computer Communications Network has already fundamentally changed our lives. Licklider predicted that the Net would fundamentally change the way people live and work. It is important to try to understand this impact, so as to help further this advance.

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• A speech give to the Columbia University student ACM Chapter on 4/24/94 based on THE NET AND NETIZENS: The Impact the Net has on People's Lives. originally available as chapter 7 of the netbook "The Netizens and the Wonderful World of the Net: An Anthology" at [http://www.columbia.edu/~hauben/project\\_book.html](http://www.columbia.edu/~hauben/project_book.html).

**Review for Internet Research:  
Netizens: On the History and Impact of Usenet and the Internet**

by Michael and Ronda Hauben  
IEEE Computer Society, 1997, ISBN 0-8186-7706-6.

345 pages

reviewed by Karin  
Geiselhart  
[karin@doctordemocracy.net](mailto:karin@doctordemocracy.net)

Netizens delivers on its title. It provides a chronicle of the development of the Internet, and particularly the venerable part called Usenet. It is almost an ethnographic study, as the authors are also long term participants on Usenet. Not surprisingly, the book reflects some of the character and contains some of the benefits and drawbacks of Usenet itself, as many of the chapters were first posted on the Internet. There are repetitions, homely but sincere writing, overlapping themes and a good dose of acronymic jargon in some places which might deter the uninitiated. Some sections, replete with copies of postings or appended with detailed notes, almost look like what we have become so used to scanning through on our screens.

But beyond these idiosyncrasies, Netizens is a book which champions grass roots democracy. It speaks for and through the on-line citizens who helped shape the Net in its early days. The unfolding of ARPANET and unix is much more than a story of problem solving and the scientific method applied to new realms of computing. Like a fairy tale or myth we can enjoy hearing in many different versions, the birth of the Internet goes deep into our cultural psyche. It embodies what we want to believe about technological change: that it has loftier intent along with entrepreneurial energy. Of course, this is a very American story, so it is appropriate that it be told from the Haubens' American, yet gently challenging perspective.

This is where Netizens is most interesting and highlights a theme which is today much muted: the role of blue sky research and government funding. Their history assembles detailed quotes from many of the pioneers. Back in 1968 Licklider and Taylor, of the Advanced Research Projects Agency, envisaged a network of computers which would move communication capabilities far beyond the linear transportation model of sender to receiver which prevailed at the time. They understood the potential for users being "active participants in an ongoing process", and foresaw the development of communities based on affinity and common interests.

These were not visions with immediate commercial payback, and perhaps they never will be. The technical difficulties in establishing such a global network could only be handled through substantial amounts of non-profit funding, which is what ARPANET was given. One of the twists in the Internet story which lifts it to the level of near myth is the irony that the project had a military goal, but this required linking civilians so they could share

information. The founding of unix had almost religious, and certainly philosophical undertones. The Haubens refer to descriptions of its development as "a system around which a fellowship would form." Here they touch on another grand theme of the Internet, reflexive progression. They ask, with innocent and irrefutable logic: "How else should one go about designing communications programs but on an operating system designed with the basic principle of encouraging communication?" Thus emerged a system which put power in citizens' fingertips and minds and eyes, provided a many to many capability, and raised the possibility of a read and write media as a counter to global leviathans. In their chapter on the effect of the net on professional news media, they again present real people's views and experiences to document their theoretical position. I must admit to a tiny thrill of recognition and pride, when I saw a quote from an Australian journalist of my acquaintance. And the pleasure of reading their book was enhanced by having met the Haubens at a conference or two. Probably nothing can replace face to face friendliness over a shared meal.

But they could not be further from an academic elite. Although Ronda in particular draws on seventeenth and eighteenth century economic works and philosophers, the book never loses sight of its democratic intent. A further theme of universal access penetrates each part of this history: past, present, future, and theoretical framework.

While the comparison between the Internet and the invention of the printing press is now commonplace, they flesh it out with succinct and pertinent quotes from Elizabeth Eisenstein's seminal book on the printing press in early modern Europe. And always highlighting the role of both technologies in opening new domains of learning, sharing, participating.

Unfortunately, one of their own examples shows the naivete in hoping for empowerment through technology alone. In late 1994, the National Telecommunications Information Administration held a virtual conference to consider future directions for the US infrastructure. There was an outpouring of support for the social benefits of the Internet from all corners of the country. Eloquent arguments were made for universal access. However, the public's input to NTIA was not acted on, and the US backbone of the Internet was privatised in May 1995. Another sad coda to that episode is that, according to the Haubens, only 80 public access sites to the on line conference were made available in libraries or other public places.

Correctly, they note that "One of the most difficult dilemmas of our times is how to deal with the discrepancy between the need for more public input into policy development and the actions of government officials who ignore that input."

These tensions, like the theme of universal access, remain critical, even as electronic commerce spreads, supposedly in response to "market forces." By offering us detailed insights into the early days of these still unresolved issues, Netizens reminds us that technology should serve the people.

They include part of a poem by Vint Cerf, another founding father of ARPANET. Written in the late 60s, it reveals his recognition of the intimate play between art and science, linked by a common thirst for knowledge. I could not help but remember his words as a

keynote speaker at the Internet Conference in Montreal, nearly 30 years later, in response to a question from Scott Aiken, one of the founders of the Minnesota e-democracy project: "Democracy doesn't scale." Netizens is an affirmation by the authors on behalf of all their fellow Usenet contributors, and all of us who have benefitted in some way from the altruism and free information which flows? across the Internet. Theirs is an optimistic mantra: democracy can scale.

-----Karin Geiselhart PhD student

Faculty of Communication

University of Canberra <http://student.canberra.edu.au/~u833885/home.htm>