The Amateur Computerist

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Spring 2016 **The Internet, Netizens and China 2005-2015** **Volume 27 No. 1**

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Introduction

This issue of the *Amateur Computerist* documents an important achievement of Internet development that took place in the period extending from November 2004 through December 2015, a period of a little over a decade. During those years Internet users especially in China exercised a more active and broader form of citizenship giving a preview of what netizenship might in the future be able to do for a society.

The issue begins with "The International Origins of the Internet and the Impact of this Framework on Its Future," a talk presented at Columbia University to an audience of librarians in November 2004. The talk introduced the World Summit on the Information Society of which Part 2 would be held in Tunis Tunisia in November 2005. The talk put the upcoming Summit in the broad context of the development of the Internet.

The talk referred to some of the speakers at a UN sponsored meeting held on September 20-21, 2004 in Geneva, Switzerland, preparing for the Working Group on Internet Governance (WGIG). One of the speakers quoted was Madam Hu Qiheng, who included in her speech her appreciation of the Internet. She said: "The Internet is a resplendent achievement of human civilization in the 20th Century." She explained why "government has to play the essential role in Internet governance… creating a favorable environment boosting Internet growth while protecting the public interests." Madam Hu was speaking as the head of the delegation from the People's Republic of China. The text of her talk on Internet governance appears as the second article in this issue.

The next article, "The 1987 Birth of the China-CSNet Email Link and How Its History Got Corrected," describes how an international e-mail link between China and the rest of the online world was made possible by a Chinese-German research collaboration in the 1980s. By the time of the Tunis Conference, however, this was not the history being told in China.

A two-day side conference held just before the Tunis WSIS Summit was called the Past, Present, and Future of Research in the Information Society (PPF). A panel at this conference held on November 14, 2005 was titled "The Origin and Early Development of the Internet and of the Netizen: Their Impact on Science and Society." On this panel, a paper on the German-Chinese Collaboration presented the evidence to correct the inaccurate narrative circulating in China. In the audience were some members of the Chinese delegation to the WSIS conference, including Madam Hu. After a brief discussion of the two views of how China became connected to international e-mail, Madam Hu said she would encourage that there be an investigation into the disagreement and if the narrative that was being told in China was not accurate, she would help to get it corrected. The article in this issue describes how between 2005 and 2007 this correction was made.

The fourth article in this issue is a talk presented at the Tunis panel "International and Scientific Origins and the Emergence of the Netizen." It documents the vision that set the foundation for the Internet. Also it

describes a serious problem that computer pioneers recognized in their efforts to develop computer and Internet technology. As an example, JCR Licklider one of the most influential people in the history of computer science spread a vision from the early 1960s of universal connectivity which helped guide the development of the Internet. He believed that there would be a need for the public to be involved in the considerations and decisions regarding network development. He recognized that there would be problems with pressure being put on government from other sectors of society and that active citizen participation would be needed to counter these pressures. Licklider realized there would need to be a public spirited online citizenry which would actively take up to solve problems when they developed.

Just such a public spirited online citizenry had developed by the early 1990s. One researcher in 1992-1993, Michael Hauben observed the emergence of this public spirited online citizenry. He proposed the name "Netizen" to describe these online citizens. Describing netizens, Hauben wrote:

> Netizens…are people who understand it takes effort and action on each and every one's part to make the Net a regenerative and vibrant community and resource. Netizens are people who decide to devote time and effort into making the Net, this new part of our world, a better place.

Subsequent articles in this issue include several that document some of the netizen developments that took place in China over the course of the 2005-2015 decade. For example, in 2008 netizens in China and Chinese speaking netizens from around the world created the Anti-CNN web site. Two of the articles in this issue describe the Anti-CNN web site, set up to counter false narratives spread in the western media in response to violent riots that took place in Lhasa in March 2008.

The article in this issue "China in the Era of the Netizen" documents other examples of netizen activities in China, from the July 2009 English language edition of the Chinese magazine *NewsChina*. The title of that issue is "The Netizens' Republic of China." It includes an article on "Netizens, The New Watchdogs." That article describes the importance of the practice of Chinese netizens engaging in online supervision of public officials toward creating more democratic governance in China.

Then on September 14, 2009, the Internet Society of China held the first Netizens Cultural Festival Day to honor netizens and present awards for netizen achievements. Other articles in the issue provide further examples of the role played by netizens in Chinese society. One article describes how netizens gave aid and support to those affected by the earthquake in Sichuan in 2008, as a few years earlier netizens had helped with the handling of the SARS epidemic. These are some of the examples of how netizens in China and Chinese speaking netizens around the world have demonstrated the important role netizens can play in helping to make their society and the world more responsive to citizens and to social needs.

In the article in this issue, "My Thinking on Netizens," Xu Liang while a visiting scholar at Columbia University, tells how he came online in 1999 and eventually saw the value of the Internet to society. He writes, referring to the authors of the book Netizens, "They imagine that the netizens would be the mainstream in 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." But he warns it will take a long time and if governments act "in the name of the netizens, netizen society will just repeat the traditional model."

This issue of the *Amateur Computerist* celebrates the Internet and netizenship especially as they developed from 2004 to 2015 and especially in China. The last article presents a proposal to the organizers of annual World Internet Conference (WIC) in China. It proposes that the WIC include an academic segment of the conference to enhance the possibility that the WIC will build on the lessons from the early development of the Internet and the emergence of the netizens.

The International Origins of the Internet and the Impact of This Framework on Its Future.

by Ronda Hauben
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[Editor's note: The following is a talk given at Columbia University on Nov. 4, 2004.]

The research I have been doing for the past 12 years is about the origin, development and social impact of the Internet. I want to propose that knowing something of the nature of the Internet, of its international origins and early vision and development can provide a useful perspective for looking at a process that is currently ongoing at the initiative of the United Nations.

I want to share some of my research about the original vision and the international origins of the Internet and the implications of this heritage on the Internet's future. Just now, over the past two or more years, and continuing through November, 2005, there is an ongoing United Nations initiative in which the world's governments are participating, along with NGO's and corporate entities. Yet this high level activity, as *Wired* reports, "has been largely ignored by those not participating in it." (Wendy Grossman, "Nations Plan for Net's Future," October 11, 2004)

This process is known as the World Summit on the Information Society (WSIS). After preparatory activities for almost two years, the first of two planned summits was held in Geneva, Switzerland in December 2003. Since that summit, a continuing series of meetings are scheduled to set the foundation for the second Summit which is planned to take place in Tunisia in November of 2005.

Heads of state of many nations, particularly developing nations, came to the Geneva summit and spoke about the importance of the Internet to the people in their countries and to their present and future economic and social development and well being. The participants recognized that the Internet is an international network of networks, and that it has been built by a great deal of public and scientific effort and funding. The disagreement arises over the nature of the present and future management structure and processes for the governance of the Internet.

In 1998 the U.S. government, which had previously overseen the Internet's infrastructure managed as a non commercial, scientific and educational medium, made a decision to begin to transition it to a private sector entity which is called the Internet Corporation for Assigned Names and Numbers (ICANN).

In the WSIS process there has been a lot of contention over the form and processes of ICANN. The concern is that ICANN was constructed as a business and technical creation and that this process marginalized governments.

Another way of describing this disagreement is that there a contest about whether the development and management of the Internet and its infrastructure should be left to the market to determine or set by the policies of governments.

Concern is being raised about what are the issues pertaining to Internet governance. Stimulating the spread of the Internet and who has access is one such issue. Others include safeguarding the Internet's integrity, oversight of the distribution of Internet addresses and domain names, determining the nature of the public interest and how to protect that interest, etc.

At the core of this dispute is the question of what kinds of policy decisions need to be made about the Internet and determining the process by which they will be made.

The WSIS meetings include those who it is claimed have an interest in questions of Internet governance. These are called the "Stakeholders" and thus far include representatives from:

governments
civil society (NGO's)
private sector

Others are sometimes mentioned, such as the scientific community, or the academic community.

In looking back at the origins of the Internet, I feel it is helpful to start with the vision of J. C. R. Licklider, a psychologist, who was invited to begin a research office within the U.S. Department of Defense in Oct 1962. Licklider called the office the Information Processing Techniques Office (IPTO).


JCR Licklider

Licklider was an experimental psychologist who had studied the brain. For his PhD thesis he did pioneering work mapping where sound is perceived in the brain of the cat. Licklider was also excited about the development of the computer and of its potential to further scientific research.

He was particularly interested in the potential of the computer as a communication device. He saw it as a means of helping to create a community of researchers and of making it possible to strengthen the education available to the whole society through access to the ever expanding world of information. He envisioned that increased social contact would become available via the computer and computer networks.

Licklider created a community of researchers that he called the Intergalactic Network. He had in mind a network of networks. Though it was too early to create such a network when he began at IPTO in 1962, he set a foundation that inspired the researchers that followed him. He returned briefly to head the IPTO from 1974-75 just at the time that the research on the Internet was being developed.

In a paper Licklider wrote with another researcher, Robert Taylor in 1968, Licklider outlined a vision for a network of networks. Licklider's vision was of the creation and development of a human-computer information utility. For this to develop and be beneficial, everyone would have to have access. The network of networks would be global. It wouldn't be just a collection of computers and of information that people could passively utilize. Rather his vision was of the creation of an on-line community of people, where users would be active participants and contributors to the evolving network and to its development. To Licklider, it was critical that the evolving network be built interactively.

Also Licklider believed that there would be a need for the public to be involved in the considerations and decisions regarding network development. He recognized that there would be problems with pressure being put on government from other sectors of society and that active citizen participation would be needed to counter these pressures. Licklider, writes:

> …many public spirited individuals must study, model, discuss, analyze, argue, write, criticize, and work out each issue and each problem until they reach consensus or determine that none can be reached – at which point there may be occasion for voting.

Licklider believed that those interested in the development of the global network he was proposing, would have to be active in considering and determining its future. He also advocated that the future of politics would require that people have access to computers to be involved in the process of government. Licklider writes:

> Computer power to the people is essential to the realization of a future in which most citizens are informed about, and interested and involved in the process of government.

Licklider and other computer pioneers of the 1950s and 1960s were concerned with the public interest and how the computer and networking developments of the future would be maintained in the public interest. Licklider writes that it is important to not only seek to consider the public interest, but also to make it possible for the public to be involved in the decision making process: "[Decisions] in the 'public interest' but also in the interest of giving the public itself the means to enter into the decision-making process that will shape their future."

Through the 1960s and into the early 1970s the IPTO pioneered new and important computer technology like the time-sharing of computers and then the creation of packet switching and the ARPAnet computer network. The research was written up in professional publications and widely distributed.

By the late 1960s and early 1970s it was recognized that there was widespread interest in developing computer networking in countries around the world. A conference was held in 1972 at the Hilton Hotel, in Washington DC from October 24-26. More than a thousand researchers from countries around the world attended and participated in the demonstration by U.S. researchers that packet switching technology was functional. The demonstration excited many of the researchers. Also, however, international participation was recognized as critical to the development of networking technology. "International participation is no mere adornment to the Conference," the organizers wrote. "It is a primary means toward achieving a diversity of interest and viewpoint."

At the conference, a group was formed of those

working on networking developments in different countries. It was called the International Network Working Group (INWG).

The great interest worldwide in computer networking was stimulating, but also it presented a

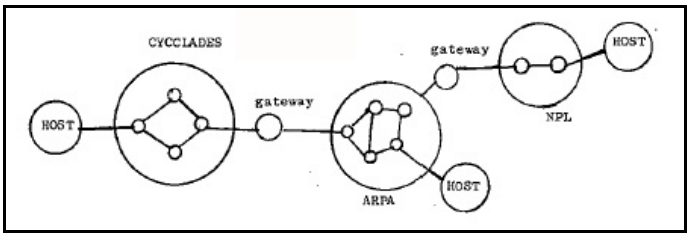


Diagram from a memo from Vint Cerf, not an actual plan.

problem. To understand the nature of this problem, it is helpful to consider the fact that there were packet switching networks being developed in different countries. These included Cyclades in France, NPL in Great Britain, and ARPAnet in the U.S. These networks were different technically and were under the ownership and control of different political and administrative entities. Yet networking researchers realized the importance of making it possible for these networks to be able to interconnect, to be able to communicate with each other. This can be articulated as the Multiple Network Problem.

There was the recognition that no one of these different networks could become an international

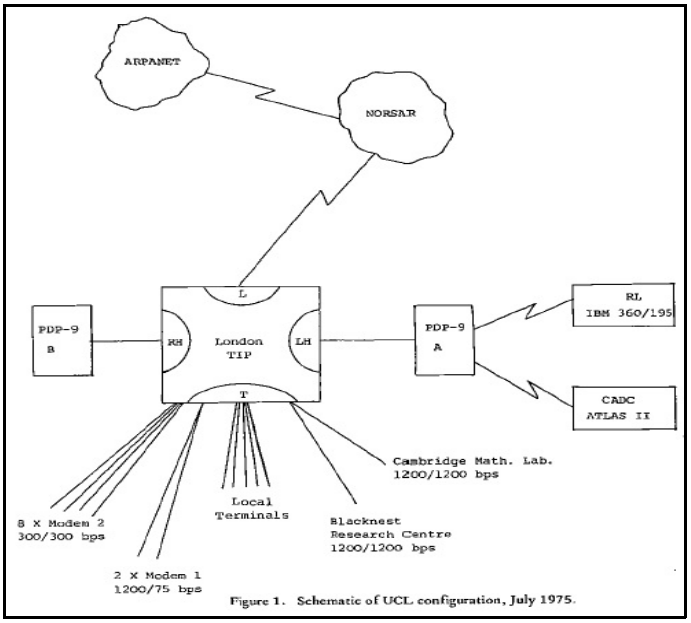


Figure 1. Schematic of UCL configuration, July 1975.

network. There would need to be some means found to make communication possible across the boundaries of different networks.

Collaboration among the researchers continued, with a number of meetings and exchanges about how it would be possible to design and create a means to support communication across the boundaries of these diverse networks.

At a meeting in September 1973 at the University of Sussex, in Brighton, England, two U.S. researchers, Bob Kahn and Vinton Cerf presented a draft of a paper proposing a philosophy and design to make it possible to interconnect different networks. The basic principle was that the changes to make communication possible would not be required of the different networks, but of the packets of information that were traveling through the networks.

To have an idea of the concept they proposed it is helpful to look at a diagram to show what the design would make possible.

In the gateways, changes to the packets would be made to make it possible for them to go through the networks. Also the gateways would be used to route the packets.

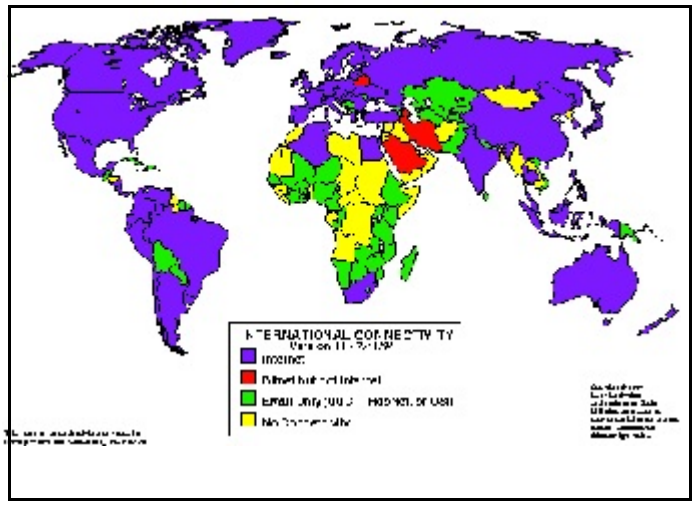
The philosophy and design for an Internet was officially published in a paper in May 1974. The paper is titled "A Protocol for Packet Network Intercommunication" by Vinton Cerf and Robert Kahn with thanks to others including several from the international network research community for their contributions and discussion.

Describing the process of creating the TCP/IP protocol, Cerf explains that the effort at developing the Internet protocols was international from its very beginnings. Peter Kirstein, a British researcher at the University College London (UCL) presented a paper in Sept 1975 at a workshop in Laxenburg, Austria, describing the international research process. This workshop was attended by an international group of researchers, including researchers from Eastern Europe. Kirstein reports on research to create the TCP/IP protocol being done by U.S. researchers, working with British researchers and Norwegian researchers. Here is the diagram that Kirstein presents showing the participation of U.S. researchers via the ARPAnet, along with British researchers working at the University College London (UCL) and Norwegian researchers working at NORSAR.

Collaboration between the Norwegian, British and U.S. researchers continued, demonstrated by the research to create a satellite network, called SATNET. Later researchers from Italy and Germany became part

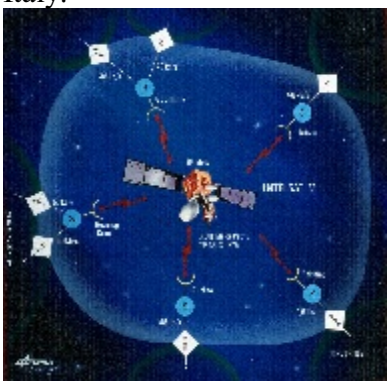
of this work.

Describing this international collaboration, Bob Kahn writes: SATNET…was a broadcast satellite



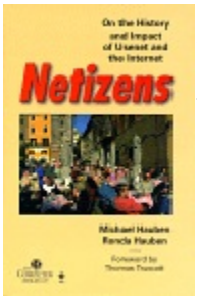
In this map you can see the areas of the world where TCP/IP networking was possible, the areas where there was access to BITNET but not the Internet and the areas there was only e-mail access via different networking possibilities like uucp, FIDONET or OSI (X.25), etc.

system. This is if you like an ETHERNET IN THE SKY with drops in Norway (actually routed via Sweden) and then the U.K., and later Germany and Italy.



Networking continued to develop in the 1980s. Among the networking efforts were those known as Usenet (uucp), CSnet, NSFnet, FIDONET, BITNET, Internet (TCP/IP), and others.

By the early 1990s TCP/IP became the protocol adopted by networks around the world.



Netizens: On the History and Impact of Usenet and the Internet, published by the IEEE Computer Society Press, 1997, ISBN 0-8186-7706-6

It is also in the early 1990s that my co-author of the book *Netizens*, Michael Hauben, did some pioneering on-line research as part of class projects in his studies at Columbia University. He explored where the networks could reach and what those who were on-line felt was the potential and the problems of the developing Internet.

In the process he discovered that there were people on-line who were excited by the fact that they would participate in spreading the evolving network and contributing so that it would be a helpful communication medium for others around the world. Michael saw these users as citizens of the net or what at the time was referred to as net.citizens.

Shortening the term to 'netizen,' he identified and documented the emergence of a new form of citizenship, a form of global citizenship that is called netizenship.

Describing these on-line citizens, the netizens, Michael writes:

> They are people who understand that it takes effort and action on each and everyone's part to make the Net a regenerative and vibrant community and resource. Netizens are people who decide to devote time and effort into making the Net, this new part of our world, a better place.

What are the implications of this background to the WSIS process? In October 1998, the U.S. government decided to privatize the Internet's infrastructure. It created ICANN, the Internet Corporation for Assigned Names and Numbers. ICANN provided only minimal input for governments in an official way or for Internet users. There have been many problems with the structure and functioning of ICANN and lots of criticism.

The WSIS process led to holding a Summit in Geneva in December 2003. A number of heads of state attended. Issues raised included:

•Affordable access available to all.

•What would be the role for Governments in Internet governance?

•What would be the role for others in Internet governance?

In February 2004 a workshop was held to try to determine the components of Internet governance. At the workshop there was a proposal for netizens to be involved in Internet governance, recommending that netizen involvement would make it possible to counter the self interest of corporations who were part of the Internet governance process. The following diagram was submitted by Izumi Aizo of Japan. It still shows only a minimal role for governments but it introduces a role for netizens which is in line with Licklider's vision of the crucial nature of citizen participation in

the network's development.

On-line, there is a forum involved with the WSIS process. But few people who are involved with WSIS seem to pay attention to it. However, a comment on the forum seemed quite relevant to the problems being raised. The contributor to the forum, Safaa Moussa was from Egypt. Moussa, too, echoed Licklider's concerns, writing that the crucial issues of Internet governance involve the issue of public access and the issue of how to widen the scope of public engagement in the decision making process.

In September 2004, a meeting was held in Geneva. Many contributions to that meeting seemed in line with the vision of Licklider expressed to guide computer network development. But there was contention, also. Summarizing the conflict that has developed in the WSIS process, a representative of Egypt, H. E. Dr. Tarek Kamal, explains that there are two conflicting view points. One view is that Internet governance involves primarily technical and operative issues which can be best coordinated by technical groups and business organizations (this is the view of those in favor of ICANN). The other view pointed to by Dr. Kamal is that technical resource management and other policy matters concerning the Internet are social and public questions needing international and government participation.

At the September 2004 meeting, supporting this second viewpoint, a member of the Brazil delegation, Jose Marcos Nogueira Viana, proposed the need to create an inter-governmental forum – a meeting place for governments to discuss Internet related issues. Also putting public interest into the debate, was Hans Falk Hoffmann, a representative from the international scientific institution CERN. He described how the scientific community would continue to try to connect universities and therefore major cities to the global network with sufficient bandwidth at affordable prices. A representative from the Chinese delegation Madam Hu Qiheng, explained how: "The Internet is a resplendent achievement of human civilization in the 20th century. And that government has to play the essential role in Internet governance...creating a favorable environment boosting Internet growth while protecting the public interests."

I want to propose that this activity as part of the WSIS process demonstrates the importance of understanding the fact that the Internet is international and that there is a demand for an international management process and structure.

Similarly, and perhaps even more important is the need to understand how to determine the public interest. In connection with this goal, I want to propose the need to seriously consider whether the goal of netizen empowerment is one of the important policy issues to be injected into the WSIS process. This would imply the need to provide means for the on-line community to be able to be active participants in the WSIS process. In the on-line forum on September 9, 2004, Safaa Moussa wrote:

> This on-line forum constitutes an important part of mobilizing efforts for the pursued effective outcome. But, in view of the wide-ranging aspects that Internet Governance covers, I believe it is duly important to make it clearer the inclusion of on-line contributions into the decision-making process.

On-line interaction and feedback need to be seen all along the decision-making and implementation processes.

Another point I would like to underline is the creation of on-line working groups to help integrate and coordinate initiatives and efforts undertaken at national regional and international levels.

The Tunis Summit will take place in November 2005. Will it be able to meet the challenges of the continuing development and spread of the Internet? There are promising signs that the public and international essence of the Internet as envisioned by J. C. R. Licklider which were so important in the origin and development of the Internet are being taken up. But will there be a means of welcoming the on-line community, the community of netizens into the WSIS process? Will there be a convergence of netizen participation and defense of the public essence of the Internet strong enough for the results of the Tunis summit to be significant?

Tunis November 2005

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WGIG: China Delegation On Internet Governance*

by Madam Hu Qiheng**

[Editor's Note: The following speech by the Head of the China Delegation was given at the Consultation Meeting on the Establishment of the UN Working Group on Internet Governance (WGIG) held at the United Nations Headquarters in Geneva, Switzerland on September 20 and 21, 2004.***]

Thank you, Mr. Chairman,

It is my great pleasure to have this opportunity to discuss Internet governance with all of delegations today. First of all, I would like to express my appreciation to Mr. Annan for his emphasis on this meeting, and his accreditation of Mr. Desai to host the meeting. And I would also like to thank the executive secretariat for the work they have done. It is very important and timely for all the stakeholders to further exchange ideas on Internet governance before the formal startup of the working group on Internet Governance.

Internet governance is the focus of WISIS first phase. Wide discussions have been held during the first phase, with quite a lot of agreement and understanding reached. While on the other hand, we have to admit that many problems on Internet governance still need to be studied and discussed. Therefore the first phase of WSIS authorized Mr. Annan to set up a special working group to carry out studies and discussions on this issue, which is one of the important achievements of the first phase of WSIS and fully shows the emphasis given to Internet governance by the international society. It is our hope that each party would follow the basic principles of the "Declaration of Principle" and "Plan of Action" adopted in the first phase of WSIS, to further carry on cooperation and study on Internet governance, to seek common points while reserving differences, to consider Internet governance with a perspective view, to reach consensus on Internet governance and guide the Internet development to meet its own trend and the common demand of the world people. Here, I would like to put forward the following viewpoints:

I. The change of the nature of Internet demands the involvement of governments into the Internet governance.

Internet is a resplendent achievement of human civilization in the 20th century. With over 30 years' development, it has evolved from a dedicated network for science and military to an important global information infrastructure, which has penetrated into every area such as economy, trade, culture, media, education and politics, etc. Internet has become an indispensable part of the human society, so Internet governance is vital to the state sovereignty and public interests. Therefore each country must apply governance upon Internet regarding it as a crucial infrastructure. While it greatly brings advantage to people's work and life, Internet also causes many problems such as cyber crime, copyright piracy, spam, spread of harmful information, etc, which draws general attention of the international society. Those problems threaten the safe and stable operation of the Internet, infringe upon public interests, and interfere with the normal economic activities and social order. As the representative of the state and the public interests, all the conscientious governments should take the responsibility to proactively take part in the Internet governance and closely cooperate with the civil societies and private sectors to jointly develop the Internet and promote the safe and stable operation as well as a sustainable development of Internet.

II. Internet development itself calls for the transition of the governance mode.

The Internet has undergone different development stages. The governance mode at the initial stage featured bottom-up and self-discipline, which met the demands resulting from Internet growth at that time and played a significant role, thus facilitating the development and prosperity of the Internet. As the Internet keeps expanding at such an amazing speed and spreads globally the simple self-governance mechanism is not enough anymore. The international society has shared the understanding that government has to play the essential role in Internet governance. It can be well proved by the fact that in the first phase of WSIS, all the related parties have reached an accord that governments have to play their role in Internet governance and the administration of the domestic Internet falls within the sovereignty of each country. Considering conscientious government represents the interest of the state and its people, any private sector or civil society could not do better in this regard, so we should emphasize that

governments and inter-governmental organizations play a leading role in Internet governance. In view of the unique features and legacies of the Internet, we favor the Internet governance mode, namely, jointly promoting the secure, stable and sustainable development of the Internet under the principle that governments lead the way, all stakeholders have full participation. That government leads the way, as we say above, does not necessarily mean government control or being at the position to control, but government creates a favorable environment boosting the Internet growth while protecting public interests. Civil societies and private sectors will play important roles as usual in Internet governance, should respect religions, cultures and customs and abide by laws and regulations of state. In a word, there is a necessity to form a new framework of Internet governance featuring the leadership of government and sufficient participation of all stakeholders.

III. Inclusion and openness shall dominate the process of defining Internet governance and determining related public policy issues.

The first phase of WSIS assigned WGIG four tasks, one of which is to make a working definition of Internet governance. Inclusion and openness represent the essential features of the Internet and should be fully reflected in the definition. As far as we are concerned, it is a better approach to define Internet governance in a broad comprehension, because only this kind of understanding can make all stakeholders involved, which accords with the principles agreed upon in the first phase of WSIS.

The related public policy issues, as we think, involve many aspects of Internet governance, including at least:

•Internet resources management, such as managing IP addresses, domain names and AS numbers

•Internet information and network security, such as spam, harmful information (children pornography, network virus and etc.), cyber crime (data interception, unauthorized visit, hacker, information theft and financial fraudulence), information privacy and confidentiality and other issues

•The international legal system and administrative coordination mechanism on Internet

•Operational security of Internet infrastructure, such as the security of domain name system

•IPR protection and knowledge sharing

•E-commerce

•Convergence between the Internet and the telecommunication network, etc.

Internet governance solutions to the issues above need the active participation and leadership of governments and inter-governmental organizations, so they will be and should be discussed under the framework of the UN.

Finally, we think the current biggest problem facing the Internet is the absence of a legitimate entity for international Internet governance. Our opinion is that the governance entity, generated through democratic procedure under the UN framework, implements Internet governance according to the principle of freedom, democracy and equality. The entity should be authoritative, impartial and authorized to guarantee the Internet a large platform for people with different languages, cultures, religions, races and political backgrounds to exchange views, thus ensuring sustained development and prosperity itself.

That's all. Thank you, Mr. Chairman.

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* http://www.wgig.org/docs/qiheng.pdf

** Head of China Delegation to the WGIG; Adviser, Science and Technology Commission, Ministry of Information Industry, China; Academician of Chinese Academy of Engineering; Former Vice-President, Chinese Academy of Sciences.

*** http://www.wgig.org/meeting-september.html

The 1987 Birth of the China-CSNET E-mail Link and How Its History Got Corrected*

by Jay Hauben
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In September 1987 an e-mail link was established between the People's Republic of China and the Federal Republic of Germany. That link allowed China to participate in the CSNET, an international e-mail network. It was the first link of China into an international e-mail system based on a mail server in China and a major step toward China's joining the Internet.

The following article tells some of the details of how that link was developed and how the story of

that development was corrected in China. It documents some of the international collaboration that characterizes the science and technology on which the Internet is based.

I. Finding Werner Zorn

In the early 1990s, Ronda Hauben and Michael Hauben sought to find and document where the Internet came from, how it was developed and how it was spreading. They found substantial evidence that the Internet developed as an open, scientific and engineering collaboration. All the evidence was that the process was international from the very beginning and was guided by a vision of a major advance to human society from a new universal inexpensive communication system.[1]

In 2004, Ronda Hauben and I were in Germany. Ronda had heard that the first permanent e-mail link between China and the rest of the world was connected to the University of Karlsruhe,[2] a major institute for education and research in western Germany. While in Germany, we were told if you want to know about the Germany-China link see Werner Zorn.

We located and interviewed Professor Werner Zorn in Berlin. He shared his memories and some documents from 1983 to 1987. During those four years, a Chinese-German international collaboration prepared the link so that China would be part of a worldwide e-mail system called CSNET. Professor Zorn particularly gave credit on the Chinese side to Professor Wang Yunfeng who was the Senior Advisor of the Institute for Computer Applications (ICA) in Beijing. The Institute of Computer Applications was located at the Beijing Institute of Technology (BIT). It was under the Chinese Ministry of Machinery and Electronics Industry. The ICA was created to provide data processing and computer services to small and medium organizations that were not large enough to have their own computer installations. It became a foremost computer networking center. From 1987 to 1994, ICA was the mailserver and hub on the Chinese side for the CSNET e-mail exchange between China and the rest of the world.

II. A Chinese-German Collaboration Builds China's First International E-mail Link

Many factors contributed to make that link possible. In the early 1980s, the World Bank supported the import of computers for use in universities in China. At that time, export of computers from the U.S. to China was forbidden by the U.S. government. The German government also subscribed to the COCOM[3] export rules but some computers made by the German company Siemens met the criteria to be allowed export to China. In 1982, the World Bank Chinese University Development Project I was allotted $200 million. It used some of that money for the import into China of 19 Siemens BS2000 mainframe computers manufactured in Germany. One of these Siemens computers was delivered to the ICA.

As part of the project, Professors Zorn and Wang collaborated to organize the first Chinese Siemens Computer Users Conference (CASCO – Symposium '83)[4] which took place in September 1983 in Beijing. At the conference, Professor Zorn led a seminar on the German Research Network project. One of the Chinese interpreters challenged Professor Zorn, remarking that lecturing was not enough. Would Professor Zorn do something more for China? That planted the seed that grew into the Chinese-German computer networking collaboration which developed the e-mail link based on the Siemens BS2000 computers installed at the ICA in China and in the Karlsruhe University in West Germany.

In 1983-4, Professor Zorn was part of the effort that connected Germany to the CSNET[5], a network begun in the U.S. in 1980 to provide e-mail connections among university computer science departments. To connect to CSNET, a computer would need particular communication functionality as part of its operating system. The specifications or protocols providing that functionality for CSNET had not yet been implemented in the Siemens BS2000 operating system. In late 1984, Professor Zorn decided to undertake this task together with his students but only as a background job. It took two years to complete. The work was financially supported in part by the government of the West German state of Baden-Wuerttemberg. Its Prime Minister Lothar Späth was friendly to China.

The CSNET international e-mail network was based on ordinary telephone lines and switches using a communication protocol with the name X.25[6]. In 1985, both China and West Germany were developing internal X.25 e-mail traffic systems. But there was no physical path to carry such e-mail traffic between them. With the help of the PKTELCOM data network administered by the Beijing Telecommunications Administration, the Karlsruhe team made contact with the Italian cable company Italcable. Italcable had some

leased lines via satellite between China and Italy. The Italian company agreed to open its switches to route X.25 e-mail traffic between China and Germany. Italcable was able to open its switches on Aug. 26 1986. From that day on, reliable remote computer-to-computer dialogue was available between Karlsruhe University and ICA through PKTELCOM. But a CSNET e-mail link was not yet possible because the Siemens computers at the ICA and in Karlsruhe did not have the necessary functionality to handle CSNET e-mail messages.

In late summer 1987, Professor Zorn was in Beijing for the third CASCO conference but also to work with the staff of the ICA to set up the e-mail link between China and Germany. His team at Karlsruhe University had succeeded in getting the CSNET protocols to work on their Siemens BS2000 computer.

In a little over two weeks, September 4 to 20, 1987 the Chinese and the German teams implemented within the operating system of the ICA Siemens computer the necessary protocols, installed the necessary communications equipment and overcame the many technical problems to make possible e-mail connectivity with Karlsruhe.

III. The First E-mail Message from China to the CSNET

On September 14, 1987, the joint German and Chinese team composed an e-mail message with the subject line, "First Electronic Mail from China to Germany." The message began in German and English "Across the Great Wall we can reach every corner in the world." Not only was the message addressed to Karlsruhe in Germany, it was also addressed to CSNET computer scientists Lawrence Landweber and David Farber in the U.S. and Dennis Jennings in Ireland. It was signed by Professor Werner Zorn for the University of Karlsruhe Computer Science Department and Professor Wang Yunfeng for the ICA. Eleven coworkers are also listed as signatories, Michael Finken, Stefan Paulisch, Michael Rotert, Gerhard Wacker and Hans Lackner on the Karlsruhe side and Dr. Li Cheng Chiung, Qiu Lei Nan, Ruan Ren Cheng, Wei Bao Xian, Zhu Jiang and Zhao Li Hua on the ICA side, suggesting the complexity of the task. But they could not send the message they composed. To their great disappointment, the message failed to leave China.[7] There was a last technical problem to solve. Successful connectivity was achieved in a few more days. On September 20, 1987, the first CSNET e-mail message, the one composed on September 14, could actually be sent to Karlsruhe.

The transmission of this first e-mail message went over an X.25 connection. At ICA, the sender dialed using a 300 baud modem to one of the X.25 ports of the PKTELCOM Beijing. PKTELCOM Beijing was connected over a satellite link to ITAPAC, which was the X.25 packet network of Italy. From there the message was sent via a gateway to the German X.25 network DATEX-P, to be delivered to the Karlsruhe Siemens host. This route was very expensive because it included international telephone charges for each separate link.

(Message # 50: 1532 bytes, KEEP, Forwarded)
Received: from unika1 by irau11.germany.csnet id aa21216; 20 Sep 87 17:36 MET
Received: from Peking by unika1; Sun, 20 Sep 87 16:55 (MET dst)
Date: Mon, 14 Sep 87 21:07 China Time
From: Mail Administration for China <MAIL@ze1>
To: Zorn@germany, Rotert@germany, Wacker@germany, Finken@unika1
CC: lhl@parmesan.wisc.edu, farber@udel.edu,
jennings%irlean.bitnet@germany, cic%relay.cs.net@germany, Wang@ze1, RZLI@ze1
Subject: First Electronic Mail from China to Germany

"Ueber die Grosse Mauer erreichen wie alle Ecken der Welt"
"Across the Great Wall we can reach every corner in the world"
Dies ist die erste ELECTRONIC MAIL, die von China aus ueber Rechnerkopplung in die internationalen Wissenschaftsnetze geschickt wird.
This is the first ELECTRONIC MAIL supposed to be sent from China into the international scientific networks via computer interconnection between Beijing and Karlsruhe, West Germany (using CSNET/PMDF BS2000 Version)

University of Karlsruhe -Informatik Rechnerabteilung- (IRA)	Institute for Computer Application of State Commission of Machine Industry (ICA)
Prof. Werner Zorn	Prof. Wang Yuen Fung
Michael Finken	Dr. Li Cheng Chiung
Stefan Paulisch	Qiu Lei Nan
Michael Rotert	Ruan Ren Cheng
Gerhard Wacker	Wei Bao Xian
Hans Lackner	Zhu Jiang
	Zhao Li Hua

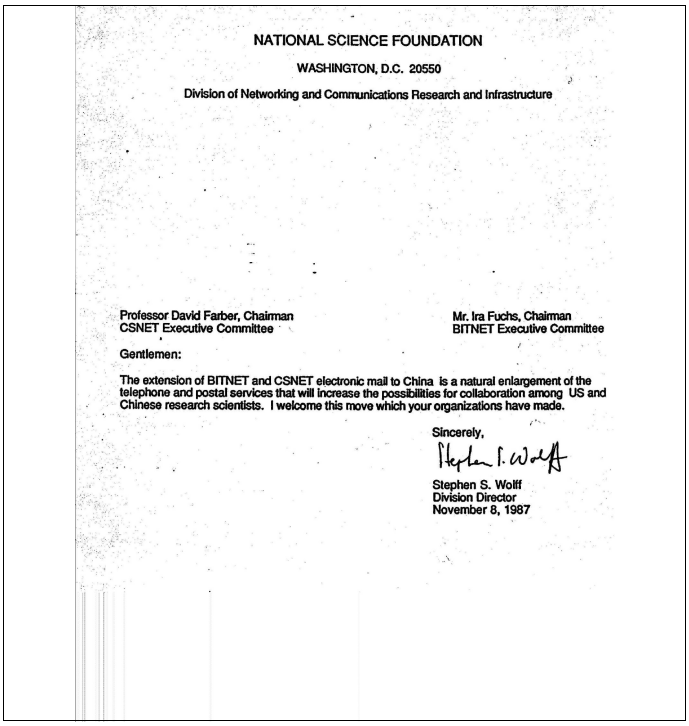
The First E-mail Message for CSNET to Leave China

The Siemens host in Karlsruhe was connected via the Karlsruhe local area network with a VAX 11/750. That computer acted as the central CSNET node for Germany. It polled the CSNET relay in Boston several times a day. Thus the CSNET node in Beijing was, with that first e-mail message, fully integrated into CSNET and via CSNET to the rest of the e-mail world. With this first e-mail node in China, a step was taken for the people of China to begin online communication with people around the world. But this was not an Internet connection but only a very expensive e-mail link.

IV. China Welcomed into the International E-mail Community

E-mail connectivity between China and

Germany was only the necessary technical precondition for an e-mail service. What was missing was the official approval of the U.S. authorities that funded CSNET. The U.S. National Science Foundation (NSF) was the umbrella institution for all CSNET networking within the U.S. and also abroad at that time. Immediately after the technical connectivity was achieved, Professor Zorn worked with Professor Wang to win acceptance from the NSF for worldwide e-mail traffic to and from China. With the help of Lawrence Landweber, the Chairman of the CSNET project, and other U.S. computer scientists, acceptance by the NSF was achieved less than two months later. On November 8, 1987, in a letter to the executive committees of CSNET and BITNET, Stephen Wolff, Director of the NSF Division of Networking and Communications Research and Infrastructure welcomed the CSNET e-mail connectivity with China.



NATIONAL SCIENCE FOUNDATION

WASHINGTON, D.C. 20550

Division of Networking and Communications Research and Infrastructure

Professor David Farber, Chairman
CSNET Executive Committee

Mr. Ira Fuchs, Chairman
BITNET Executive Committee

Gentlemen:

The extension of BITNET and CSNET electronic mail to China is a natural enlargement of the telephone and postal services that will increase the possibilities for collaboration among US and Chinese research scientists. I welcome this move which your organizations have made.

Sincerely,

Stephen S. Wolff
Division Director
November 8, 1987

Letter from Stephen Wolff, Nov. 8, 1987

This letter was the official political approval of what technically was already implemented. As far as I can tell there was no government to government activity, no treaty or signed agreement. The story is told that Stephen Wolff did get a command from the U.S. White House to rescind permission after he had already given it, but as he says, "you don't ask permission in advance. You ask forgiveness afterwards."[8]

Without Wolff's letter, the China-Germany e-mail connection would have been vulnerable to a cutoff. The NSF could decide to deny forwarding of e-mail messages to and from ICA in Beijing. Professor Zorn considers November 8, 1987 as the time China became officially connected with the rest of the world via the CSNET e-mail system. E-mail received from China at Karlsruhe would be relayed from there to whichever CSNET host worldwide it was addressed. And the reverse, any CSNET host worldwide could send e-mail to ICA in Beijing and it would be relayed from there to users of the China Academic Net (CANET) throughout China as well as to users in other Chinese institutions outside CANET. The international computer science community and Chinese students abroad who learned of this connectivity answered with their warm congratulations.

Still these were small steps. Even with the support of the Chinese State Science and Technology Commission, hardly any Chinese institution and no individual scientist could afford to send or receive e-mail messages to or from abroad. That was because X.25 for international traffic increased in cost as the size of the e-mail message increased. The cost on the Chinese side included charges for every message received as well as sent. Longer e-mail messages could cost 150 RMB**, for a professor the equivalent of a whole month's salary. The monthly charges for the link, between $2000 and $5000 paid by each side, were more of a burden for the Chinese side than the German side.[9] E-mail usage was thus severely restricted.

But for the five years during which expensive e-mail connectivity was the only network connectivity that could reach the rest of the world, China prepared itself to truly join the Internet.

With encouragement from the Chinese government, knowledge and understanding of international computer networking was spreading in China, especially in the scientific and computer communities. The Institute for High Energy Physics (IHEP) belonging to the Chinese Academy of Sciences opened an e-mail connection in 1989 with its partner in the U.S., the Stanford Linear Accelerator Center (SLAC) in California. Message Handling Systems (MHS) were set up in 1990 between the German Research Network (DFN) and the Chinese Research Network (CRN) and between the Beijing Tsinghua University Network (TUNET) and its partner in Canada at the University of British Columbia (UBC).

The e-mail and remote logon only phase of connectivity between China and the rest of the world came to an end in 1994. That is when IHEP worked

together with SLAC to take the next big step in connectivity between the people of China and the people of the world. On May 17, 1994, IHEP and SLAC established a full TCP/IP connection between China and the U.S.[10] The use of the TCP/IP protocols allows data packets to take independent paths which meant the cost for e-mail could come down and file transfer (FTP) and remote logon (Telnet) would now be available. That connectivity opened the Internet to China and China to the Internet.

V. Getting the Accurate Story

After Ronda and I interviewed Professor Zorn in 2004, I took up to write an article about this history for the *Amateur Computerist*, an online news journal. My online journalism research for the article took me mostly to web sites in China. The story told there gave most credit for the China-CSNET connection to a Chinese engineer, Qian Tianbai whom Professor Zorn had hardly mentioned. Missing from the history on the websites in China that I found was any credit to Professor Wang or to the international component which Professor Zorn had stressed.

I sent e-mail to Professor Zorn asking him about the discrepancy. I also sent e-mail to Liu Zhijiang at the China Internet Network Information Center (CNNIC) asking if there was any evidence for citing on the CNNIC website that Qian Tianbai was responsible for the first e-mail message. Professor Zorn sent me via e-mail more documents and the e-mail addresses for two Chinese scientists, Dr. Li Cheng Chiung and Ruan Ren Cheng, who had signed the first e-mail message. Dr. Li Cheng Chiung was the Director of the ICA from 1980 to 1990. A copy of the first e-mail message was online. I saw that Qian Tianbai's name was not among the 13 signatures.

The two Chinese scientists answered with more information about the September 1987 e-mail message and about Qian Tianbai. Particularly they both answered that Qian Tianbai was not in China at the time of the opening of the link in 1987 and that Qian Tianbai had not participated in this project. I found no evidence otherwise.

Through further digging and via e-mail correspondence with Dr. Li Cheng Chiung and Ruan Ren Cheng, I was able to confirm to my satisfaction Professor Zorn's story of the events.

VI. Spreading the Accurate Story

I wrote my article[11] and it was published in the *Amateur Computerist* giving justified credit to Professors Wang and Zorn and their teams and to Lawrence Landweber of the CSNET and Stephen Wolff. My article appeared online and I sent copies to CNNIC and other contacts I had made in China. Encouraged by my journalism, Professor Zorn intensified his efforts to get the story corrected in China.

A bit later Professor Zorn was invited by Ronda to tell the story at a panel planned in conjunction with the World Summit on the Information Society (WSIS) for Nov 2005 in Tunis in North Africa. In Tunis, Professor Zorn presented his story of the international effort and collaboration especially between himself and his team in Germany and Professor Wang and Dr. Li and the team in Beijing. Professor Zorn put up many slides showing the Chinese and German teams during the period and he put up one slide which said:

> The official time lines contain some seriously mistaken information and are also omitting important facts. They cause hereby fatal misinformation meanwhile spread all over the world.

In the audience in Tunis was Madam Hu Qiheng, Vice President, China Association for Science & Technology, and Chair of Internet Society of China. Mdm Hu rose and spoke of her friendship with Qian Tianbai but said she would investigate why the story told in China differed from the one Professor Zorn told. I gave her a copy of my article and Professor Zorn gave her copies of some of the documents he had given me.

VII. The CNNIC Internet Time Line Gets Corrected

Just before the Tunis event, Professor Zorn had sent documents to CNNIC supporting the roles of Professor Wang and the ICA team and of the Karlsruhe team. Also, Nanjun Li one of Professor Zorn's PhD students made contact with Wang Enhai Director of the Information Service Department at CNNIC to help it investigate the discrepancy between the CNNIC Internet Time Line and Professor Zorn's documents. When Mdm Hu returned to China from Tunis she asked CNNIC to investigate the 1987 e-mail message. As the editor of the CNNIC Internet Time Line, Wang Enhai took the task. He was assisted by Chen Jiangong.[12] During the investigation different experts and participants in the events gave different stories. Min Dahong

of the Chinese Academy of Social Sciences helped explain publicly the controversies that CNNIC had to investigate.[13]

The Internet Time Line Committee of CNNIC[14] met in March 2007 and decided, based on all the evidence, that entries on the official CNNIC website Internet Time Line should be changed to give proper credit to the work of Professors Zorn and Wang, their teams and the international effort that made the first e-mail link between China and the world via CSNET possible. It had taken 18 months. The first entry of the CNNIC Internet Time Line was changed in May 2007 to read:

> In September 1987, with the support from a scientific research group led by Professor Werner Zorn of Karlsruhe University in Germany, a working group led by Professor Wang Yunfeng and Doctor Li Chengjiong built up an email node in ICA, and successfully sent out an email to Germany on Sep 20th. The email title was "Across the Great Wall we can reach every corner in the world."

VIII. Celebrating the International Collaboration

In spring 2007, Professor Zorn was organizing a celebration of the 20th anniversary of the success of the opening of the China-CSNET link for September 2007 in Potsdam Germany. He was overjoyed by the news he was receiving that Professor Wang and Dr Li and himself and the ICA and Karlsruhe teams were being recognized in China for their hard work in setting up the China-Germany CSNET link. He invited to Potsdam many of the international pioneers who helped spread the Internet. And he invited Mdm Hu because the accurate story about that link was now spreading in China. For me, the celebration was for both the success of the e-mail link and the success of helping correct how the history was being told. At the celebration, Mdm Hu representing the Internet community in China presented a souvenir from China to Werner Zorn, Lawrence Landweber and Stephen Wolff as representatives of the international Internet pioneers. In her presentation she emphasized what Professor Zorn had always stressed:

> The international collaboration in science and technology is the driving force for computer networking across the country borders and facilitating the early Internet development in China.[15]

But this is not the end of the story.

In late 2008, the Internet Society of China asked online users in China what date would they chose for a National Net Citizens (Netizens) Cultural Festival? It is reported that about 500,000 users voted. The largest number of those voting chose September 14. That is the day in 1987 when the first message to be sent on the China-CSNET link was composed. When the Internet Society of China organized the first-in-the-world Net Citizens (Netizens) Cultural Festival Day, it invited Professor Zorn. It also invited Ronda Hauben and me for our work about netizenship and about the international collaboration that made the Internet possible.

The first Netizens Cultural Festival Day was held September 14, 2009 in Beijing at the CCTV Tower. It was a lively event with speeches and awards for some bloggers. An oral history panel was held discussing some of the problems of opening an Internet link to China in 1994 so the Chinese people could have full Internet connectivity. This first net citizens' day was not yet well known among the public or even among the then 350,000,000 net users. It was like a baby being born, small but of a big potential.

Instead of seeing that potential, a *Wall Street Journal* blog post framed the event as an "official day" that "didn't seem to muster much enthusiasm."[16] But the *Wall Street Journal* was not the only media covering the events. About 40 online media journalists attended and reported on the celebration. They did live online blogging of the event and put up text, photo and video reports so that online users could see and judge the event for themselves.[17]

On the oral history panel at the CCTV Tower, Qian Hualin, Chief Scientist and Vice President of the Internet Society of China informed the audience that:

> Just as Germany was helpful with China establishing an e-mail link with the CSNET in 1987, today China is offering its experience to Vietnam in network construction and to the DPRK in setting up and managing the domain name system of dot KP.

With this statement, Qian Hualin showed that the international collaboration that characterizes the Internet continues.

IX. Summary

From 1983-1987, despite the Cold War, computer scientists in China and West Germany were able to collaborate to build up a link between China and the international CSNET e-mail network. They had support from the international computer networking community to transcend national borders, ideological differences, and political restrictions. After a false start, the history of this international collaboration is known and respected in China. With such collaborations and efforts to spread accurate stories, the Internet will continue to develop and bring the people of the world closer together.

Notes

1. See for example, "Part II The Past: Where it has Come From" in Michael Hauben and Ronda Hauben, *Netizens: On the History and Impact of Usenet and the Internet*, IEEE Computer Society Press, Los Alamitos, CA., 1997. There is an online version of the book at http://www.columbia.edu/~hauben/netbook/
2. See Cindy Zheng, "Current Computing/Networking Status in China," *China News Digest*, Special Issue on Networking in China, July 11, 1993, http://www.sdsc.edu/~zhengc/93trip.html.
3. COCOM, the Coordinating Committee for Multilateral Export Controls, was established during the Cold War to put an embargo on Western exports to East Bloc countries. It established multi-lateral export controls for strategic and military goods/materiel and technologies to proscribed destinations.
4. CASCO- Chinesische Anwender von Siemens Computern.
5. The CSNET was the result of a proposal in 1979 submitted to the U.S. NSF by Lawrence Landweber to make computer network connections among U.S. and other university computer science departments. It started as a simple telephone-based e-mail relay network which became known as PhoneNet. By 1984, computer science departments outside of the U.S. began to connect. Canada, Israel, Germany and France had early connections, soon followed by South Korea, Australia and Japan.
6. http://en.wikipedia.org/wiki/X.25
7. Wang Enhai tells this story at http://tech.sina.com.cn/i/2008-11-06/09452560594.shtml (in Chinese)
8. See, "Panel Discussion: The Road to the First E-mail," *The Amateur Computerist*, Vol. 16 No. 2, Summer 2008, p. 5. Available on line at: http://www.ais.org/~jrh/acn/ACn16-2.pdf.
9. For computer networking activity, ICA was financially better off than were the Chinese universities. ICA was funded by the Ministry of Machinery and Electronics Industry. The universities were funded by the Ministry of Education which could not distribute as much money to each university as ICA received.
10. http://www.nsrc.org/db/lookup/operation=lookup-report/ID=890202373777:497422478/fromPage=CN.
11. "'Across the Great Wall': The China-Germany Email Connection 1987-1994." See: http://www.columbia.edu/~hauben/china-e-mail.doc.
12. E-mail message from Wang Enhai to the author, August 27, 2008. Wang Enhai gave an interview in 2008 to SINA which details the method and results of this investigation. It is online at: http://tech.sina.com.cn/i/2008-11-06/09452560594.shtml and http://tech.sina.com.cn/i/2008-11-06/09452560595.shtml (both in Chinese).
13. See for example, Min Dahong, "China's first e-mail exactly who and when issued," Xinhuanet, Nov 22, 2006. Available online at: http://news.xinhuanet.com/newmedia/2006-11/22/content_5358191.htm (in Chinese).
14. The Committee had been established in 2002. Its members were experts from governments, research institutes, newspaper agencies, Internet companies, universities, and retired Internet contributors. In 2007 Min Dahong was on the Committee.
15. See "Cordial Thanks to Our Friends," *The Amateur Computerist*, Vol. 16 No. 2, Summer 2008, pages 13-14. On-line at: http://www.ais.org/~jrh/acn/ACn16-2.pdf.
16. "China's Netizens Day Gets Scant Attention" by Juliet Ye. See http://blogs.wsj.com/digits/2009/09/15/chinas-netizens-day-gets-scant-attention/tab/article/
17. See for example the video at: http://my.tv.sohu.com/u/vw/21977107 or http://v.youku.com/v_show/id_XMTE5MTY3OTUy.html

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* This article is a slightly revised version of a presentation made at the Institute for the History of Natural Sciences, Chinese Academy of Sciences, in Beijing, July 10, 2012. The presentation was accompanied by a slideshow which is online at: http://www.columbia.edu/~hauben/beijing2012/j-china2012-email-link-slides.ppt. Part of this presentation was given at the International Conference on Media Education and Global Agendas, Southwest University of Political Science and Law, Chongqing, China, January 12-13, 2010. There is a version of this article in Chinese in *Science & Culture Review*, Vol. 10 No. 1, February 2013, pages 81-89, published by the Institute for the History of Natural Sciences, CAS.

**The RMB (renmibi) is the official currency of China.

International and Scientific Origins of the Internet and the Emergence of the Netizens*

by Ronda Hauben
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[Editor's Note: The following is a talk given on Nov. 14, 2005 in Tunis at a side event at the World Summit for the Information Society (WSIS 2005).]

> Netizens are Net Citizens who utilize the Net from their home, workplace, school, library, etc. These people are among those who populate the Net, and make it a resource of human beings.

> These netizens participate to help make the Net both an intellectual and a social resource.
>
> Michael Hauben
> "Further Thoughts about Netizens"

I am happy to be here today and to be presenting the opening paper in this session of the *Past, Present, and Future of Research in the Information Society* (PPF) conference. This session is titled "Computer Networks, the Internet and Netizens: Their Impact on Science and Society."

It is an honor to have this session as a side event connected to the 2nd phase of the UN's World Summit on the Information Society (WSIS), where the importance of access to the Internet becoming available to all the world's peoples is being affirmed.

Secondarily, even as this conference session is taking place, there is a struggle ongoing involving a number of countries around the world to try to determine the management model that is needed for the international administration of the Internet's infrastructure. But to solve this problem it is useful to have some idea of how the Internet was developed and what are the salient aspects of that development.

In my talk today, I want to explore these aspects and in turn try to unravel some of the myths about the Internet and its origins that hide its actual character. I have a draft paper I have prepared where I explore the issues in greater detail that I will speak about today.

First, a common view of the Internet is that it was created within the U.S. by the U.S. Department of Defense as a way to have a communication system that would survive a nuclear war.

This is a fallacious view of the origin of the Internet. It is inaccurate in many aspects.[1]

Notably:

1. The Internet is a result of scientific and technical collaboration that was international from its earliest stages.
2. There was a vision guiding and inspiring its international collaborative development.
3. The Internet is a solution to the Multiple Network Problem – to connect dissimilar networks.

More specifically, the goal of Internet research was to make communication possible across the boundaries of different networks. During the period of the birth of the Internet (1973-1983), countries like Great Britain, France, Canada and others were either actually creating their own national or specific computer networks, or were developing plans to do so. These networks would all be different technically and would be owned and operated by different political and administrative entities. How to provide for communication across the boundaries of these diverse networks was the problem to be solved.

The research that solved this problem was the work to create the protocol called TCP/IP. The protocol TCP/IP makes it possible to communicate across the boundaries of dissimilar networks. TCP/IP was developed particularly by a research collaboration including Norwegian researchers connected with NORSAR, which was a network site in Norway, British researchers, connected by a site at the University College London, and American researchers working as part of the Information Processing Techniques Office (IPTO) on the ARPAnet.

In my talk today I want to focus on what I propose are some of the scientific origins of the research that have made the Internet possible. And I want to argue that though these scientific origins are poorly understood and not often recognized, they are critical to an understanding of the nature of the Internet and supporting of its future development.

To understand these scientific origins of the Internet's development, we need to look back to the early post World War II period. During this period there was scientific ferment to understand the science of communication. A community of scientists, mathematicians, engineers and social scientists were interested in exploring the processes of communication. One means some of the researchers adopted was to participate in an interdisciplinary community of researchers who met bi-yearly or yearly. Essentially these researchers pursued different disciplines and spoke different scientific languages.

Their effort was to try to bridge the boundaries that separated their disciplines. The meetings of the group were known by different names, but during one period they were called the Josiah Macy Jr. Foundation Conferences on Cybernetics. The phenomenon was also known as "feedback" or "self organizing systems." The meeting not only studied communication but also endeavored to develop a practice more conducive to communication. A conference session was held on a weekend. Only two or three papers were presented at each conference and people were encouraged to ask questions during the paper presentation if they did not understand the points being raised or if they wanted clarification. After the papers were read, there would

be a more general conversation and discussion of issues raised. The conference sessions were transcribed and the transcription sent to the participants after the conference. They could make corrections or clarifications. The publication of the conference proceedings would include the publication of the discussion, along with the publication of the paper presentations. There were ten such Macy Foundation conferences from 1942 until 1953. Five volumes of the conferences proceedings were published.

J.C.R. Licklider (or Lick as he asked people to call him) was a research scientist who had made certain scientific advances in communication research. His PhD thesis broke new ground by mapping where in the brain of the cat, different pitches of sound were received and how this led to the perception of different frequencies of sound.

Also Licklider had made an engineering breakthrough which is referred to as "clipped speech." He was able to identify what small part of a sound wave was critical for the sound to be perceived. (This was helpful to the U.S. military during WWII in identifying how pilots could get help hearing vital sounds despite intense background noise.)

Licklider was deeply interested in the study of communication. He only attended one of the ten Macy Foundation conferences on Cybernetics. However he, along with other scientists, received support from the National Science Foundation (NSF) in the U.S. to have a conference in 1954 at the Massachusetts Institute of Technology (MIT) similar to the Macy Foundation conferences on Cybernetics that had ended in 1953. The title of the NSF conference was "Problems in Human Communication and Control." The notes of the meetings were then transcribed. Licklider edited the notes. The proceedings were published, much in the same way the Macy conference proceedings were published.

During this period, computer scientists and engineers were interested in understanding the workings of the brain (and nervous system) and scientists like Licklider who were studying the brain were interested in the workings of the computer. There was an intuition that insight into the mechanisms of the brain could be gained from research in computers. Similarly, computer science researchers believed that learning about how the brain functioned would make possible scientific breakthroughs in computer science.

An important interest of Licklider's was in the workings of the brain and how more advanced computer development could help the research collaboration of scientists and engineers. Of particular interest was a form of modeling. In a paper written with Robert Taylor in 1968, Licklider and Taylor wrote:

> By far the most numerous, most sophisticated and most important models are those that reside in men's minds.[2]

An example of how the computer could help represent models for Licklider was the program 'Sketchpad' created by Ivan Sutherland. Describing a demonstration he had seen of Sutherland's modeling program, Warren Teitelman, then a graduate student at MIT, writes:

> Dr. Sutherland sketched the girder of a bridge, and indicated the points at which members were connected together by rivets. He then drew a support at each end of the girder and a load at its center. The sketch of the girder then sagged under the load, and a number appeared on each member indicating the amount of tension or compression to which each member was subjected.

Sutherland was able to add the support needed using the modeling program. Then the bridge was, according to the computer simulation program, able to maintain the weight. This is an example of the encouraging potential that Licklider envisioned if the scientific research community could acquire the technology they needed for their modeling.

Licklider not only felt that modeling was critical for scientific research, but for society as well. Describing the modeling that Licklider believed characterized the functioning of the brain, he and Taylor write: "In richness, plasticity, facility and economy, the mental model has no peer, but in other respects it has shortcomings."

The primary shortcoming of such a model is that it is stored in the brain of only a single individual. Hence, "It can be observed and manipulated only by one person."

In order for such models to serve a social function, there is a need, for the models in the heads of individuals to become part of a collaborative process. This is because, as Licklider and Taylor write. "Society rightly distrusts the modeling done by a single mind."

More specifically:

> Society demands (...) [what] amounts to the requirement that individual models be compared and brought into some

> degree of accord. The requirement for communicating which we now define concisely [as] 'cooperative' modeling – [is] cooperation in the construction, maintenance and use of a model.

Licklider and Taylor then explain that like the process they believe is ongoing in the brain, what is needed for such cooperative modeling is: "a plastic or moldable medium that can be modeled, a dynamic medium in which processes will flow into consequences."

Most important for such a medium is that it supports collaborative contributions and processes – that it be: "a common medium that can be contributed to and experimented with by all."

Licklider and Taylor envisioned that the developing online community would find the capability for such collaborative modeling as the Internet developed and that having access to this plastic collaborative environment would be a boon to the advancement of society and of science. As the Internet has developed, it has made possible new forms of scientific collaboration and modeling much as Licklider and Taylor proposed would become possible.

Along with the need for such a moldable medium for scientific collaborative development, Licklider also maintained that there would be a need for a collaborative community with this capability to support continuing network development and to intervene to help with the problems that would develop if government officials who do not understand the nature of computer technology, are charged with making the decisions needed for its development.

Licklider was part of a community of scientists who had seen the consequences of poor technical and political decisions made by governments. (For example the bombing of civilians during WWII by the Allies).

In the spring of 1961, a series of eight lectures were held to honor MIT on the occasion of its 100th birthday. The British scientist and writer, C.P. Snow, was invited to give a talk discussing this problem. The title of the talk was "Scientists and Decision making."[3]

During his talk, Snow described the gap that would exist between understanding the nature of the new computer technology and the understanding of government officials who would have the responsibility for decisions about how to support the development of this new technology. Snow explained how such a problem required a situation similar to a phenomenon that in physics is called Brownian Motion. Referring to what happened in Great Britain after World War II when the whole society began discussing the need for national health care, Snow outlines the phenomenon:

> I believe that the healthiest decisions of society occur by something more like Brownian movement. All kinds of people all over the place suddenly get smitten with the same sort of desire, with the same sort of interest at the same time. This forms a concentration of pressure and of direction. These concentrations of pressure gradually filter their way through to the people whose nominal responsibility it is to put the legislation into a written form.[4]

Shortly after Snow's talk at MIT, Licklider was invited to join the Advanced Research Projects Agency (ARPA). He was to set up an office for research in computer science and an office for research in behavioral science. He called the office for research in computer science the Information Processing Techniques Office (IPTO), (1962-1986). Licklider was its first director and he was followed by Ivan Sutherland. There were several subsequent directors, and then in 1974, Licklider was invited to return as director.

In his writing and talks after he left the IPTO in 1975, Licklider describes the problems he encountered to get support for basic research in computer science within the U.S. Department of Defense and the need for citizens who will actively take up the problems when they develop.

Licklider is not asking for citizens to vote on every issue. Instead he outlines how voting is insufficient as a way to work to promote the public interest. He writes:

> (V)oting in the absence of understanding defines only the public attitude, not the public interest. It means that many public spirited individuals must study, model, analyze, argue, write, criticize, and work out each issue and each problem until they reach consensus or determine that none can be reached – at which point there may be occasion for voting.[5]

Licklider describes the need for citizen involvement in government decisions to help determine how to support the continuing development of computer technology. More significantly, Licklider proposes that people will not be interested in government processes until they have a means to participate

in those processes. He foresees how computer developments will provide that means. He writes:

> Computer power to the people is essential to the realization of a future in which most citizens are informed about, and interested in, the process of government.[6]

The process for citizen involvement in the development of computer technology that Licklider outlines is a process that characterizes the kind of discussion that I found on some of the earliest mailing lists and Usenet newsgroups that developed in the early 1980s. This process functioned for needed technical discussion, such as with the ARPAnet TCP/IP Digest when the cutover to TCP/IP was carried out.[7]

Such discussion also helped to develop and spread the vision for ubiquitous computer networking that was discussed on the Human Nets mailing list and other mailing lists and Usenet newsgroups during the early 1980s.

But more fundamentally, the emergence of such a public spirited online citizenry that Licklider believed so important to the continued support and development of computer and networking technology was identified through the research done by a college student in the early 1990s.

In 1992-3, as part of research done for a college assignment, the student, Michael Hauben, posted a series of questions and some preliminary research about the developing network on Usenet newsgroups. (Usenet is a worldwide discussion forum.) He also posted his questions on a few Internet mailing lists. Michael was surprised as replies to his questions began to arrive in his mailbox. Through subsequent posts, and analyzing the replies, he cognized that a new form of consciousness, a new identity was being acquired by many of those online who wrote him. A number of the replies he received indicated how people online were not only interested in how the developing Net was contributing to their own lives, but also many were seeking to spread access to the Internet to others.

Michael had seen the word 'net.citizen' referred to online. Thinking about the social concern and consciousness he had found among those who wrote him, and about the non-geographical character of a net based form of citizenship, he contracted 'net.citizen' into the word 'netizen.' Netizen has come to reflect the online social identity he discovered doing his research.

He wrote a paper titled, "The Net and Netizens: The Impact the Net has on People's Lives" describing the research he had done and the contribution he received from many parts of the world. This research was done in1992-1993 just at the time that the Internet was spreading to countries and networks around the world which were connecting to the Internet. Michael posted his paper on Usenet and several Internet mailing lists on July 6, 1993 in four parts under the title "Common Sense: The Net and Netizens: the Impact the Net is Having on People's Lives." People around the world wrote that they found his paper of interest and the term netizen quickly spread, not only in the online world, but soon it was appearing in newspapers and other publications offline.

I collaborated with Michael, also doing research and writing that was posted online. One of the people who found our writing of interest suggested we gather them into a book. We collected our papers into an online book titled "Netizens and the Wonderful World of the Net" which was put online in January 1994. In 1997 a second version of the book was published in a print edition titled *Netizens: On the History and Impact of Usenet and the Internet*. The book was also translated into Japanese and distributed in Japan.

Netizens, as Michael wrote, are those who embodied the social conscious and public purpose similar to that which Licklider had considered important for the continued development of computer technology and of the public policy to support that development.

Michael was invited to speak at a conference in Beppu Bay in Japan in November 1995. In his speech he explained why he felt it was important to distinguish between the more general usage the media has promoted, that anyone online is a netizen, and the usage that he had introduced, reserving the title 'netizen' for the online user who actively participates to make the net and the world it is part of a better place. He explained:

> Netizens...are people who understand it takes effort and action on each and everyone's part to make the Net a regenerative and vibrant community and resource. Netizens are people who decide to devote time and effort into making the Net, this new part of our world, a better place.[8]

Individuals from around the world adopted and helped to spread the consciousness and identity of the netizen. An especially interesting development are the netizens of South Korea. When asking a number of

people I met during a visit to South Korea if they are netizens, all responded yes, or "I hope so."

South Korea is one of the most wired nations in the world. Over 80% of the population has access to high speed Internet. Along with the spread of high speed Internet access in Korea is the development of netizenship among the Korean population.

In a way that is similar to how Michael described the interactive, collaborative online processes that he and those who wrote him in the early 1990s, researchers in South Korea are documenting similar processes and the impact of netizens on Korean society. One particularly interesting aspect of these developments is that online processes are being adopted by formerly offline institutions and that online clubs have developed offline organizational forms as well.

Implications and Research Questions Raised by Work

The online plastic collaboration which makes possible interactive modeling that Licklider and Taylor describe in their 1968 paper is a helpful analogy through which to view the online world that has evolved as the Internet has developed and spread around the world. It is similarly important to recognize the social consciousness of users as online citizens, as netizens that has evolved and spread.

In this conference today we will hear other talks which will explore the rich scientific and technical history that has contributed to the birth and development of the Internet.

I want to argue for the need for specific studies, whether historical or contemporaneous, of how the interactive, collaborative modeling that Licklider proposed as essential to further social and scientific development of technology is being explored via the Internet.

Also I want to argue for the need to bring this area of study into the public policy activities of those who are trying to contribute to the continued development of the Internet and the management of its infrastructure. For example, the WSIS meetings being held here in Tunis demonstrate the need for an appropriate model for the management of the Internet's infrastructure. I want to propose that there is a need for the kind of plastic, collaborative, interactive and international online public process to form the basis for the model needed to administer the Internet's infrastructure. Instead outdated models developed prior to the Internet have been dominating the discourse among those involved in the WSIS process.

There are a number of research questions that arise from my paper and study. I hope those interested in these issues will find a way to continue the discussion begun in this conference and after it as well.

In conclusion, not only has the Internet developed and spread around the world with an amazing speed and impact, but the netizens, the online citizens who have emerged from the environment fostered by the Internet have also developed and spread around the world. Along with the benefits of the online, plastic, collaborative, interactive environment that has developed as the Internet has developed and spread, so too the benefits of the new form of consciousness and identity, of netizens, have developed. I want to argue that it is critical to the continuing development and spread of the Internet, that the contributions and participation of the netizens be recognized, and encouraged.

As Michael observed[9]:

> Netizens are Net Citizens who utilize the Net from their home, workplace, school, library, etc. These people are among those who populate the Net, and make it a resource of human beings. These netizens participate to help make the Net both an intellectual and a social resource.

Notes:

1. The myth is that the Internet was created by the U.S. Department of Defense as an effort to create a military communication system that could survive a nuclear war. It appears to have its origins in both a misconception about what the Internet is and how it differs from the ARPAnet, and in a misunderstanding of the origins of the packet switching technology pioneered by the researchers who created the ARPAnet.

The myth grows from the false attribution of research that Paul Baran did at the RAND Institute, as research that created packet switching. This is inaccurate. Baran's research was not related to the early work to create either the ARPAnet or the Internet. Larry Roberts, who headed the research to create the ARPAnet as the head of the Information Processing Techniques Office (IPTO) in 1967-1972, describing this confusion, writes:

> (I)n 1965, a...meeting took place at MIT. Donald Davies, from the National Physical Laboratory in the U.K. was at MIT to give a seminar on timesharing. Licklider, Davies and I discussed networking and the inadequacy of data communication facilities for both time sharing and networking. Davies reports that shortly after this meeting he was struck with the

concept that a store and forward system for very short messages (now called packet switching) was the ideal communication system for interactive systems.

Roberts continues. Davies "wrote about his ideas in a document entitled 'Proposal for Development of a National Communication Service for On-Line Data processing' which envisioned a communications network using trunk lines from 100K bits/sec in speed to 1.5 megabits/sec (T1), message sizes of 128 bytes and a switch which could handle up to 10,000 messages/sec (Historical note: this took 20 years to accomplish). Then in June 1966, Davies wrote a second internal paper, 'Proposal for a Digital Communication Network' in which he coined the word packet, – a small sub part of the message the user wants to send, and also introduced the concept of an 'interface computer' to sit between the user equipment and the packet network. His design also included the concept of a Packet Assembler and Disassembler (PAD) to interface character terminals, today a common element of most packet networks."

Roberts explains that "As a result of distributing his 1965 paper, Donald Davies was given a copy of an internal Rand report *On Distributed Communications*, by Paul Baran of the Rand Corporation, which had been written in August 1964. Baran's historical paper also described a short message switching network using T1 trunks and a 128 byte message size..." But Baran's report was about a voice network. Roberts states the influence of Baran's work was "mainly supportive, not sparking its development." ("The ARPAnet & Computer Networks" May 1995, http://www.packet.cc/files/arpanet-computernet.html)

Davies contributions to the creation of packet switching has not seemed to get the credit they deserve. But in any case, the myth about the development of packet switching refers to the creation of the ARPAnet, not to the creation of the Internet. The Internet is a network of networks created via an international research process to create the TCP/IP protocol.

2. J.C.R. Licklider and Robert Taylor, "The Computer As a Communication Device," 1968, in *In Memoriam: J.C.R. Licklider, 1915-1990*, p. 21, http://memex.org/licklider.pdf

3. In Martin Greenberger, ed., *Computers and the World of the Future*, MIT Press, Cambridge, 1962, pages 2-13.

4. You may notice, perhaps, that this description by C.P. Snow of a form of Brownian Motion for society sounds similar in some ways to the concept of the 'public sphere' that the German philosopher Jurgen Habermas explores in his writing.

5. J.C.R. Licklider, "Computers in Government," in Michael Dertouzos and Joel Moses, *The Computer Age: A Twenty-Year View*, Cambridge, MIT Press, 1979, p. 126.

6. Ibid.

7. See for example, Ronda Hauben, "A Study of the ARPAnet TCP/IP Digest and of the Role of Online Communication in the Transition from the ARPAnet to the Internet." http://umcc.ais.org/~ronda/new.papers/tcpdraft.txt

8. Michael Hauben, talk given on November 24, 1995 at the Hypernetwork '95, Beppu Bay Conference in Beppu, Japan. The theme of the conference was "The Netizen Revolution and the Regional Information Infrastructure."

9. "Further Thoughts about Netizens," http://www.columbia.edu/~hauben/CS/netizen_thoughts.html. See also *Netizens: On the History and Impact of Usenet and the Internet*, http://www.columbia.edu/~hauben/netbook/.

*This talk is based on an article with the same title which was prepared for the PPF side event to the 2005 Tunis WSIS. The article can be accessed at: http://www.ais.org/~jrh/acn/acn15-2.articles/rhauben.pdf.

The 2008 Anti-CNN Website Media Watchdog and Netizen To Netizen Communication and Debate*

by Jay Hauben
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[Editor's Note: The following case study is one of three in a paper written in 2014 and presented at a conference at the United Nations on May 2, 2014.]

On March 14, 2008, Tibetan demonstrators in Lhasa the capital of the Tibet Autonomous Region in China turned violent. A Canadian tourist and the few foreign journalists who witnessed the situation put online photos, videos and descriptions documenting the deadly violence of the rioters against citizens and property (*Al Jezeera*, 2008; cali2882, 2008; Kadfly, 2008). That was even before the official Chinese media started to report it. The mainstream media in China framed the story as violence against Han and Muslim Chinese fomented by the Tibetan government in exile. Much of the mainstream international media like BBC, VOA, and CNN framed the violence as the result of discriminatory Chinese rule and Chinese police brutality.

Wide anger was expressed by many Chinese aboard when they discovered that some of the media in the U.S., Germany, and the U.K., were using photos and videos from clashes between police and pro-Tibetan independence protestors in Nepal and India to support that media's claim of violence by Chinese police. A digital slide show appeared online[1] containing an annotated presentation of 11 photos from CNN, *Der Spiegel*, the *Washington Post*, N24 German TV, BBC, *Fox News*, *Bild,* etc. The photos were mislabeled and in other ways inappropriate for the articles with which they appeared. The photos included screen shots from German TV stations that consistently labels Nepalese police as Chinese. A BBC photo showed an ambulance

using it to illustrate a "heavy military presence." A photo used by CNN to show Chinese military violence was carefully cropped to hide rioters throwing rocks at a Chinese military vehicle. The slide show ended with a slide which read, "These western media should be shamed for the reporting they've made purposely and whoever in the world, intending to slander Chinese people to promote territorial integrity of China will be doomed to failure." The slide show spread widely in cyberspace in and outside China.

Within a few days of the appearance of the inaccurate and misleading reporting, Rau Jin a recent university graduate launched the *Anti-cnn* website (http://www.anti-cnn.com). He explained that after netizen anger and discussion he wanted to "speak out our thoughts and let the westerners learn about the truth."[2] The top page of *Anti-cnn* featured articles, videos and photos documenting some of the alleged distortions in the coverage of the Tibet events. The website also had forum sections first in Chinese then also in English. The organizers set as the goal of *Anti-cnn* to overcome media bias in the West by fostering communication between Chinese netizens and netizens outside of China so that the people of the world and of China could have accurate knowledge about each other. They wrote on their website, "We are not against the western media, but against the lies and fabricated stories in the media." *Anti-cnn* was chosen as the site name, one of the organizers said, "because CNN is the media superpower. It can do great damage so it must be watched and challenged when it is wrong."[3] But the site was not limited to countering errors in the reporting of CNN. It invited submissions that documented bias or countered misrepresentations of China in the global media.

Rau received hundreds of offers of help finding examples of media distortions. He gathered a team of 40 volunteers to monitor the submissions for factualness and to limit emotional threads. Posts that were name calling or attacks on individuals or groups were to be deleted. Emotional posts were not to be allowed follow-up comments. Forum discussions were started on "Western Media Bias," "The Facts of Tibet" and "Modern China." In the first five days the site attracted 200,000 visits many from outside of China. Over time serious threads contained debates between Han Chinese and both Westerners and Tibetan and Uyghur Chinese trying to show each other who they were and where they differ or where they agree.

On *Anti-cnn* in answer to the exposure of the Western media practice, many visitors from outside China posted their criticism of Chinese government media censorship. In their responses to such criticism, some Chinese acknowledged such censorship but argued it was easy to circumnavigate, that all societies have their systems of bias or censorship and that netizens everywhere must dare to think for themselves and get information from many sources. One netizen with the alias *kylin* wrote, "I can say free media works the same way as less-free media. So what's most important? The people I'd say – …. If people dare to doubt, dare to think own (sic) their own, do not take whatever comes to them, then we'll have a clear mind, not easily be fooled. I can say, if such people exist, then should be Chinese…the least likely to be brainwashed, when have suffered from all those incidents, cultural revolution, plus a whole long history with all kinds of tricks."

Some analysis of *Anti-cnn* in the Western media criticized it as a form of nationalism[4] or of being somehow connected with the Chinese government. The Chinese government and *Anti-cnn* organizers deny any connection with each other and no verifiable evidence of such a connection has been produced. There are often expressions of nationalist emotions in Chinese cyberspace, for example calls for boycotting Japanese and French products. After the riot in Lhasa, the Chinese government and media blamed the Dalai Lama and "splitists." There was an upsurge of nationalist defense of China including on *Anti-cnn*. The moderators on *Anti-cnn* and netizens in general however are opponents of nationalism arguing that it is a form of emotionalism and needs to be countered by rational discourse and the presentation of facts and an airing of all opinions. The moderators often answered Chinese nationalists with admonitions to "calm down and present facts." While nationalist sentiment and love of country and anger appeared often on the *Anti-cnn* forums, the opportunity for a dialogue across national and ethnic barriers is an expression of the internationalism characteristic of netizens.

Chinese citizens in general know that the mainstream Chinese media have a long history as a controlled and propaganda press. Since the 1990s, there has been a commercialization of that media and more openness but still much of the national media has strong remnants from its past. On the other hand the mainstream international media had been widely assumed in China as a more reliable source of information about some events such as SARS and for alterna-

tive viewpoints. The widespread distribution by netizens like Rau Jin of exposure of distortions and bias in major examples of the international mainstream media called into question for many Chinese people their positive expectation about that media. It also attracted the attention of others who questioned whether the so called Western mainstream media is any less a propaganda or political media than the Chinese mainstream media. After western media framing of the war in the country of Georgia in August 2008 as the fault of Russia, a Russian netizen started a thread on *Anti-cnn* suggesting a Russian-Chinese alliance. He wrote, "Russian problems with the Western media are identical to Chinese problems…. What we need to do so that their publications about countries like China and Russia will be written in a fair tone rather than being politically motivated? I would be most happy to hear your opinion on these matters."[5]

Over its first year, the Anti-cnn website had become a significant news portal. After a year, there was a debate to determine its future. Some of the founders left. The site continued with separate forum sections in Chinese and English but became less focused than it was before on exposing media bias. As a continuation of Anti-cnn, the April Media Group was founded by Rau Jin. April Media sponsors Chinese and English language websites both known as M4 (http://www.m4.cn/; http://www.4thmedia.org/). The two sites carry news reports and comments not usually found elsewhere in Chinese media and they still carry exposures of the ongoing media fabrications for example about alleged crimes of the government of Syria.

The special significance of Anti-cnn was that netizens took up the important task of media watchdog, but especially a watchdog over the most powerful media like CNN and BBC. Some scholars are calling such media practice the "Fifth Estate" because the watch dog is over the media itself. In an article, "The Computer as a Democratizer," Michael Hauben argued for the crucial role in a society of a watchdog press.[6] In every society, major sectors of the media echo and support the current holders of power either internally or in the world. Now, with the netizens, there is an emerging media and journalism which tries to serve society by watching and criticizing the abuses of those with power and the media which serves them. Anti-cnn provided for the whole world an alternative to the media which was distorting the truth about the Lhasa riot. The net users who launched Anti-cnn took for themselves a public and international mission, using the net to watch critically the main international media. They took up to address journalism via exposures and discussion and debate. In the process they expanded the practice of journalism.

Notes

1. "Riot in Tibet: True face of western media" posted by dionysos615 on YouTube on March 19, 2008 https://www.youtube.com/watch?v=uSQnK5FcKas&feature=related
2. Quoted in *China Daily*, April 2, 2008.
3. Interview with Anti-cnn webmaster Qi Hanting, April 19, 2008, translated from Chinese. See Ronda Hauben "Netizens Defy Western Media Fictions of China." *OhmyNews International*, May 9, 2008. http://english.ohmynews.com/articleview/article_view.asp?no=382523&rel_no=1
4. See e.g., "Web Site Rips West's Reports on China-Tibet Conflict," by Anthony Kuhn at, http://www.npr.org/templates/story/story.php?storyId=89831099
5. http://thelinetwo.blog127.fc2blog.us/blog-entry-1.html
6. Michael Hauben and Ronda Hauben, *Netizens: On the History and Impact of Usenet and the Internet*, Los Alamitos, CA: IEEE Computer Society Press1997, pp. 315-320.

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* Taken from "Netizen Reporting and Media Criticism Pressure for a New Journalism: The South China Tiger, Anti-CNN and the Wenchuan Earthquake" by Jay Hauben. Available at: http://www.columbia.edu/~hauben/2014/j-paper-May-2014.doc

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The Power of Chinese Netizens After the Earthquake Using the Internet: Information and Help Flowed Freely*

by Xu Liang

[Editor's Note: The following report was written in June 2008.]

May 12, 2008, was a sad day for Chinese people. The 8.0-magnitude earthquake in Wenchuan County of Sichuan Province led to the deaths of at least 69,100 people. Additionally, 373,577 people were counted as injured and 18,230 still listed as missing, while 45.7 million people were affected by the disaster.

From that day on, more than 1.3 billion Chinese people tightly solidified and everyone paid attention to

one thing every day, the salvation [rescue and relief efforts] after the earthquake. Chinese were conscious that motherland was deeply in crisis and brethren were deeply in trouble, so we should do some help. Internet was the shortcut to participate in the salvation for many Chinese people. It is estimated that there are about 225 million network users, the largest number in the world. Internet is an open media and everyone can participate in it. A great number of network users joined the netizens caring for Wenchuan earthquake.

Using the Internet, netizens covered the earthquake and the salvation, called on people to donate money and materials, offered information and suggestions for salvation, supervised the work of government, and so on. This catastrophic disaster aroused the civil conscience and responsibility of Chinese, and showed the power of Chinese netizens.

Chinese netizens were the first reporting on the Wenchuan earthquake.[1] This earthquake took place suddenly and the earthquake zone is located in mountains. Before some news agencies getting the news, Chinese netizens feeling the quake in these areas had transmitted the information. After the earthquake, many netizens questioned and criticized the work of official earthquake forecast agencies.

A netizen on tianya.com[2] left one remark, "Before May 12th, some strange nature phenomena predicting earthquakes appeared in earthquake zone and some local persons worried about earthquake's coming, but local officials and forecast agencies declared that the rumor of earthquake was baseless and people need not worry."

The netizen even intercepted the page from a local government website as proof. Another netizen pointed out that the website of the earthquake forecast agency of the U.S. published the information of Wenchuan earthquake 960 seconds earlier than the counterpart of China. Then more netizens criticized the official forecast breach of duty. Under pressure some officials had to clarify some things and defend themselves.

Chinese netizens offered a great amount of useful information and advice for salvation. CCTV reported one thing showing the role of netizens. After the earthquake, Wenchuan County was isolated from outside, and all roads to Wenchuan were blocked by collapsed mountains. PLA sent several helicopters to this area, but they did not find the right places to land due to the poor weather and mountain areas. One netizen from Wenchuan published information on the Internet that she knew one place right for helicopters to land. The information was transported [cross posted] by more than 2000 netizens quickly. At last, the PLA got the information and contacted the netizen and helicopters successfully landed in Wenchuan with salvation materials.

After the earthquake, all main websites set up special editions immediately and netizens left remarks encouraging and supporting people in disaster areas, calling on people to donate money and materials to victims. What is more important, netizens tightly supervised the salvation work of the government.

One piece of information published by netizens attracted attention of all people on May 21. One salvation tent for victims appeared in a neighborhood of Chengdu which did not belong to the earthquake zone. More and more netizens suspected that some officials embezzled the salvation materials. The anger of people ascended immediately. In a press conference on May 23, the governor of Sechuan province, under huge pressure, said that the provincial government would look into the issue and severely punish the embezzlers. Then the Central government and Premier Wen Jiabao demanded governments forbid embezzlement of salvation materials and keep the distribution of salvation materials open and transparent. Several officials breaching their duty were dismissed.

Netizens created an overwhelming condition of public voices, which highly praised celebrities and companies giving large donations and condemned those with giving small donations or speaking improper words. Some netizens made donator lists of rich persons and companies. Movie star Jackie Chan donated 10 million RMB [1.6 million U.S.$] soon after the earthquake, so he was presented as a model by netizens. One Taiwan corporation, donating 100 million RMB, was highly praised by netizens.

Some netizens reported that the Japanese public showed great sympathy to China's earthquake and even one member of the Japanese salvation team working in the earthquake area quit due to self-accusation that he did not save one life. The coverage improved Japan's image in Chinese eyes, while most Chinese people before 2007 hated Japan because of Yasukuni Shrine. On the contrary, one rich boss became the object criticized by netizens because of his parsimony and disputing words, and some netizens even called for boycotting his company. Later on, the boss had to add more donations and make an apology. Recently movie star Sharon Stone quickly became the object of Chinese

netizens condemnation because she said Wenchuan earthquake was due to China's bad "karma."

After the Wenchuan earthquake, the power of Chinese netizens is rising. The power will promote the formation of civil community and democratization in China. However, the power is not bound to bring positive results. Some Chinese netizens are not mature and rational enough now. First, a few netizens spread rumors and some unconfirmed information, which can scare or vilify others.

Second, many Chinese netizens are emotional youth, called "Feng Qing" in Chinese, and they tend to lose rationality and say some extreme words. These words may instigate furies, violate personal rights, and promote nationalism. For an example, some netizens accused McDonald's of too little a donation, compared with its huge profit from China, and called for boycotting McDonald's. In fact McDonald's Company donated more than 10 million RMB and the accusation was unfair. Therefore, Chinese netizens need more objectivity and rationality, and less prejudice and emotion.

Notes

1. On May 12, 2008 at 14:28 in the afternoon a massive earthquake struck in south-central China. The epicenter of the earthquake was in rural Wenchuan County, Sichuan Province and measured 8.0 on the Richter Scale. The world outside of the quake zone began to learn of the earthquake one minute later, at 14:29, when a post on the "Tianya Mixed Talk" forum read, "Very Urgent!!!! Where has a massive earthquake occurred???" By 14:30 a video was posted on YouKu and by 14:35 a headline on the Baidu bulletin board reported, "Earthquake happens in Sichuan region." From then on posts escalated. Tianya was then the most popular forum website and had at any moment on average over 200,000 simultaneous visitors. Likewise YouKu the most popular video website at the time and Baidu the most popular search engine had tens of thousands of users when the Wenchuan disaster first hit. Professional news reports began to appear at 14:46 with a dispatch by the official online site Xinhuanet.
2. Tianya is one of the most popular forum websites in China. See note 1.

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* This article was published online by *OhmyNews International* on June 7, 2008. Xu Liang was at that time a PhD candidate majoring in international politics at Fudan University in Shanghai.

Netizens Create Anti-cnn Forum to Challenge Media Distortions of China*

by Ronda Hauben
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[Editor's Note: The following article was written after the author visited China and South Korea in Spring 2008.]

Who will win the contest to be the new global media, CNN or netizen media like the anti-CNN online forum and web site? This is a question that students in the global media literacy seminar at Tsinghua University in Beijing were given to grapple with as their final project.

The creation of the anti-cnn online forum and web site by netizens in China has been a significant development. The global media literacy seminar at Tsinghua University is taught by Professor Li Xiguang. Professor Li's background is as a journalist, covering science and technology, and as a journalism professor who is the author of significant papers about the role of the Internet in the development of the changing media environment in China. Professor Li had invited me to speak to his students in the global media literacy seminar about the spread of netizens and the impact of the Internet on society for his April 16th class.

Shortly before my 2008 trip to China was to begin, however, something quite unexpected occurred. When the western mainstream media, like CNN and BBC, pictured the events that occurred in Lhasa, Tibet, as a peaceful demonstration, Chinese netizens immediately documented that their coverage was often inaccurate or misleading. Within a few days of the inaccurate reports, an online forum appeared on the Internet called anti-cnn. It was online at the time at http://www.anti-cnn.com. The forum included articles and videos documenting some of the many distortions in the coverage of the Tibet events. The forum also had areas in English and in Chinese for discussion and debate.

I had discovered the online forum while still in New York and was intrigued by the fact that it not only provided an important source of clarification about the misrepresentations in the media, but also it made available a space for discussion in both English and Chinese about the importance of identifying and

countering the false narrative that the mainstream western media had been creating of the events in Tibet. While the online forum was named anti-cnn it was not limited to countering errors in reporting in CNN. Rather the founder had chosen anti-cnn for the name as CNN has a global spread and the purpose of the anti-cnn forum was to counter the misrepresentations of China and events in China in the global media.

I was particularly excited to be going to China at a time when a netizen media forum had been created to critique the narratives being circulated by mainstream western media organizations.

We arrived in Beijing early in the morning on April 16, the day I was to give my talk to Professor Li's seminar. We had arrangements to see Professor Li's assistant in order to get ready to go to the class for my talk. It was 3 p.m., a little while before I was to get ready to go to the class, when Professor Li's assistant called up to our room and asked if she could come up. It was good to see her. I was in the process of putting some finishing touches on my slides for my talk. She came into our room out of breath, explaining that she had tried to send an e-mail, which I hadn't seen. She said that several journalists had come to debate with Tsinghua University students about the frustrations netizens in China had with the reporting by several of the western media organizations. She urged us to come immediately with her to hear the debate.

I saved the version I had of my slides and we left to follow her across the Tsinghua University campus to the meeting between the students and the journalists. The meeting was in a large room in the journalism building. Four journalists from the International Federation of Journalists (IFJ) were seated at a large table, along with Professor Li and a number of students. Other students filled the rest of the room. The conversation was being held in English and Chinese with Professor Li doing translation from one language to the other depending on the speaker. There were perhaps as many as 80 people filling the room.

I later learned that the journalists were probably part of a nine person delegation from the IFJ who had come to speak with the Chinese government about working conditions for the 30,000 journalists who were expected to come to Beijing to cover the Olympics. While the purpose of the IFJ delegation appeared to be as advocates for the journalists who were to be covering the Olympics, the situation in the debate they were having with Tsinghua students was quite different.

At this meeting the students were presenting their frustrations and complaints about the kind of erroneous reporting that had been documented on the anti-cnn forum and asking for an explanation of how such misrepresentations could have happened. One of the students asked why the Western media did not report about the victims who had died in the fires set by those who took part in the riots. Another student asked why the western media reported that religious effigies had been burned but didn't report about the people who had died as a result of the fires and other violence in the riot. The student wondered why journalists would give more weight to the destruction of property rather than of human life.

Still another student asked how journalists could cover the story of Tibet if they didn't first take the time to learn the history of what had happened in Tibet in the past. "Does a free press mean the freedom of the journalist to present his or her own personal views or does it mean the freedom for the public to know the information," asked one of the students. Many students had hands up when there was the call for questions. The head of the delegation, Aidan Patrick White, who is the General Secretary of the IFJ, headquartered in Brussels, gave most of the responses, though others in the delegation also answered some of the questions raised by the students. White explained that when he went into journalism he thought it would be something connected with public service. He had since learned that there is political pressure on journalists no matter what country they are from.

The manager of the anti-cnn web site, Qi Hanting, is a Tsinghua University student. He was at the meeting and his presentation to the journalists was eagerly greeted by the students. He explained why the students were upset with the distorted coverage they had documented as prevalent in the reports of western media organizations. Qi explained that there was a difference between a mistake in a story and a distortion. He offered as an analogy the core of an atom and the electrons surrounding it. The electrons can appear any place around the atom, but if an electron goes too far away it can break away. Though reporters might write about different aspects of a story, he explained, their stories still can be accurate. But if the report is too far from the reality, it could be explosive. The journalists from the IFJ responded that they weren't trying to justify bad reporting. There wasn't a conspiracy in the western media against China. Qi proposed that there was a need to have reporters who emphasize different

aspects of a story in order to help there to be the proper understanding of a story, but that was different from presenting a distorted or inaccurate presentation of the story as had happened with a number of the reports of the Tibet riot in the western media.

With less than 100 days remaining until the opening ceremony of the Beijing Olympics, the issues and questions presented by Qi and the other Tsinghua University students to the IFJ journalists take on a broader significance. How will the 30,000 journalists who are expected to come to China to report on the Olympics, portray the story of China?

China has recently gone through a significant transformation. One indication of the changes is the many new buildings, the huge majestic structures that fill the Beijing skyline. These new structures, along with the people who live and work in them, are a sign that Beijing is a world class city. Can the journalists who will come to Beijing in August recognize that there is an important story about what is developing in China? Can they become a force to investigate this story and present it, so that that there is an accurate portrayal in the media for people around the world?

This question is being considered by netizens in China and abroad.

Formerly, it may have seemed to netizens in China that the western media could be a reliable source of information about events and viewpoints that were not available in the Chinese media. Now the view that the western media could be relied on to present accurate news has been transformed in just a few short weeks in March and April 2008.

Instead netizens working together online are telling the story, not only of what they see is happening in Tibet, but even more importantly, they are documenting the failure of the western media to be a reliable source of information about China.

In place of the western media has sprung up a netizen media, contributed to by some of the 210 million Internet users in China, and some of the many overseas netizens. There are many online sites where discussion among Chinese netizens takes place.

The story of these netizens in China and abroad is an important story as they have demonstrated a resolve not to surrender the framing of the story of the Beijing Olympics to the distortions of a powerful Western media. Through their own active participation and collaboration, they are working to provide an alternative narrative.

Qi explained that the anti-cnn forum and web site has a staff of over 40 volunteers. These netizens do the technical work, and the fact checking of the posts and the responses to the posts. If a submission to the web site is emotional, he explained, it will appear, but the moderators will not allow any responses to it in order to prevent the discussion from becoming too heated.

A post in the anti-cnn forum raised the question of whether it would be possible to create an East-West cultural exchange platform to facilitate communication across the cultural differences between the Chinese people and those from other cultures who will come to China for the Olympics.

Even if people can't agree, they can communicate, he proposed. He was hopeful that discussion would go in more communicative directions rather than netizens in China just feeling that they wanted an apology from western journalists who distort the news about China. His hope was that the anti-cnn forum on the Internet would make it possible to have comments on issues from a wide range of differing perspectives, rather than such differences leading to polarization and hostility.

His long term goal was that the forum become a site to support many different points of view but also where deviations from the truth would be critiqued. Talking with Qi I found it important that he was seeking to open lines of communication with western journalists despite the fact it seemed so difficult to do so. He was actually proposing a conceptual framework to make such a communication process possible.

Listening to his views made me remember a struggle netizens had with the U.S. media in the early 1990s. There was a plan for the privatization of the U.S. section of the Internet which had been built with public funds. The U.S. press was misrepresenting the struggle of netizens who were challenging the illegitimate privatization process and who were upset with the spate of commercial ads that had begun to flood the Internet.

One reporter for the *Wall Street Journal* had written an article that misunderstood what the struggle was about. Netizens contacted him and asked if he would be willing to learn some of the history and background of the struggle. He welcomed the input. The next article he wrote was very different from the previous one. It talked about how netizens were struggling over the "soul of the Internet." This was indeed a helpful description of the struggle and it was good to see that this reporter had changed in his perspective.[1]

It is not to dismiss the possibility of journalists who are part of the western media who are interested in learning about what is happening in China and in providing an accurate portrayal. It is a worthy effort to seek out a means to make such communication possible.

The goal of the netizens who are contributing to the anti-cnn forum and web site is a goal that is an important one for China and for the many people around the world who want the 2008 Beijing Olympics to contribute to friendship and further understanding among the people of the world. This is also a worthy goal for those of the western media and for other netizens around the world who want to be part of the creation of a 21st century media that spreads understanding rather than the political propaganda of one's own government. The Internet and netizens have begun to create such a truly global media.

Note:

1. Steve Stecklow, "Cyberspace Clash: Computer Users Battle High-Tech Marketers Over Soul of Internet," *Wall Street Journal*, September 16, 1993, p. 1.

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*An earlier version of this article appears in *OhmyNews International* "Netizens Defy Western Media Fictions of China" http://english.ohmynews.com/articleview/article_view.asp?menu=c10400&no=382523&rel_no=1

First Netizen Celebration Day Held in Beijing, China

Honoring the Netizen

by Ronda Hauben
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[Editor's Note: The following talk was presented in Beijing on September 14, 2009 as part of the first national Netizens Celebration Day sponsored by the Internet Society of China.*]

I would like to thank the Internet Society of China for inviting me to offer brief remarks today. I want also to congratulate the honored guests for their role in helping to make possible the development of the Internet and the emergence of the Netizens.

It is wonderful that China is holding this netizen day, the first ever to be held anywhere in the world. Often there have been events celebrating the origin and development of the Internet but only rarely has there been recognition offered for the netizen, for those online users who have taken on to contribute to the development and spread of the Net and to making possible the better world that more communication among people will make possible.

The concept of netizen comes from the research and writing of Michael Hauben while he was a college student in the early 1990s. Michael was interested not only in how the Internet would develop and spread, but also in the impact it would have on society.

In 1992 he sent out a set of questions across the computer networks asking users about their experiences online. He was surprised to find that not only were many of those who responded to his questions interested in what the Net made possible for them, but also they were interested in spreading the Net and in exploring how it would make a better world possible. Network users with this social perspective, or this public interest focus Michael called Netizens. Thus the Netizen was not all users, but users with a public purpose.

Another aspect is that the Net is international, so that netizenship isn't a geographically limited concept. To be a netizen is to be not only a citizen of one country but also a citizen of the Net. These users are citizens who were empowered by the Net, or netizens. Based on his research, Michael wrote the article "The Net and Netizens: The Impact the Net has on People's Lives." The article and the concept of the Netizen spread around the world via the Internet.

Michael and I included his influential article as part of a book titled *Netizens* which we put online on January 12, 1994. Today's celebration of Netizen Day in China is for me also a fitting celebration of the 15th anniversary of putting the first edition of the book "Netizens" online.

Though today is the first national netizen day, I have recently seen on the Internet a call for a World Netizen Day. So the importance of establishing a netizen day begun by the Internet Society of China is a proud beginning of what I hope will become a new tradition, recognizing the importance of the contributions made by Netizens to the continuing spread and development of the Internet.

Congratulations not only to those who have been honored here today, but to all netizens in China and to netizens around the world. May the tradition of the netizen, along with the development of the Internet,

grow and flourish.

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* For a Youku video of part of the talk with the translation into Chinese see
http://v.youku.com/v_show/id_XMTE5MTY3OTUy.html
There were a number of online accounts in Chinese of the September 14 event. Here is one url:
http://tech.qq.com/zt/2009/wangminjie09/#top/

China in the Era of the Netizen*

by Ronda Hauben
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[Editor's Note: This article was written in February 2010.]

I recently returned home from a trip to China. Back in New York City, I was left with the feeling that there is something significant happening in China. Some have referred to Beijing as the equivalent in the 21st century of the interesting environment that Prague symbolized for the 1990s. In the air in Beijing one senses that something new is emerging, something that must build on the old but will emerge with its new characteristics.

In Beijing, I had many interesting conversations trying to understand the significance of what is happening there. One was with a friend who is from China but who has lived outside of China for over 20 years. She was back visiting China for a special event and also planned to visit her parents who live in China, as she does every year.

Comparing current day Beijing with the Beijing she knew as a university student, she observed that Beijing has grown and developed in the Era of the Internet. Her observation helped me to realize that not only was Beijing being developed with the benefit of the Internet's contribution, but also that Beijing is a world class city developing in the Era of the Netizen.

Some notes I wrote as I left Beijing observed, "The insight of the trip was that Beijing is a city being developed in the Netizen Era. It is perhaps one of the first world class cities substantially developed in the Netizen Era. So perhaps a special characteristic of Beijing has to do with the emergence of the Netizen." It was not clear to me what the significance was of this observation at the time.

When I returned home from my trip, I came across a publication about the importance of the Netizens in China. The publication was the July 5, 2009 edition of the magazine *NewsChina*. This is the English language version published each month of the Chinese weekly magazine *China Newsweek*. The subject of this particular issue was "The Netizens' Republic of China."

The magazine contains several articles and an editorial about the impact of netizens on the political sphere in China.[1] The editorial was titled "The Netizens Public Square." One of the articles, "Netizens, the New Watchdogs," had an equally alluring subtitle which asked the question, "Has the era of 'Internet supervision' pitted Chinese netizens against the government in the promotion of democracy and political reform?"

The particular form of 'Internet supervision' the article was discussing was whether netizens empowered by the Internet could effectively monitor the actions of their government officials. Can the "era of 'Internet supervision,'" be "one in which netizens can compel visible transformation in the behavior of government bureaucrats," the article asks.[2]

The question of whether or not netizens can affect the actions of their government officials is a question raised by netizens around the world from the early days of Internet development. How this question is being explored by netizens in China is an important development. Yet few around the world, especially those who do not read Mandarin, are aware that this question is being actively explored by netizens in China.

The issue of *NewsChina* devoted to netizens presents several examples of netizens speaking out online in Chinese discussion groups and forums. Their actions are having an impact on government decision-making processes and on uncovering fraud or corruption. The particular case described in the magazine was the case of Deng Yujiao, a 21-year old waitress who was sexually assaulted by a government official. She tried to defend herself using a knife and in self defense killed her assailant. The magazine describes how her plight became a cause célèbre among netizens in China, who helped her to get a lawyer and to have the charge against her reduced so she did not have to serve any time in jail.

The magazine gives several other examples of cases of injustice that Chinese netizens championed so as to have justice prevail. Among these is the case of

a young college graduate who moved to a different city to take a job, but who did not have the appropriate temporary residence permit. Picked up for his permit violation, he was placed in a detention center. He became a victim of foul play by residents of the center and security guards and was murdered, but the story was covered up by the police. Netizens began to discuss what had happened to him and the real story of his death began to be unraveled. His assailants were arrested and tried. Eventually the measures the young college graduate was detained under were abolished by the State Council.[3]

Similarly, Chinese netizens have challenged some of the many inaccurate reports about China in the mainstream western media. In 2008 some netizens started a web site that they called www.anti-cnn.com. On the web site they documented many distortions or misrepresentations that appear in the western media.[4]

These are just a few of the many examples of netizen action online that have had an important impact on what the government does. Discussing such netizen actions, Zhan Jiang, a Professor at the China Youth College for Political Science, maintains that "the public supervision (of government-ed) via the Internet serves to promote public participation in political life."[5]

My visit to Beijing in September 2009 was my third trip to China. The first had been in November 2005 when I was participating in a panel at an international history of science conference held in Beijing. The title of my talk for the conference was, "The International and Scientific Origins of the Internet and the Emergence of the Netizens." The second trip was in April 2008 when I gave a talk at the Internet Society of China raising the question whether this is a new Age, the Age of the Netizen? One of the reasons for my trip one year latter in September 2009 was to participate in a 'Netizens Day' the first such day anywhere in the world, which was to be observed on September 14, 2009. The importance of this date is that it marks the date listed on the first e-mail message (Sept. 14, 1987) that was to be sent from China onto the international e-mail network known as CSNET. The e-mail message and link were the result of collaborative research between German and Chinese computer science researchers.[6]

The netizens celebration on September 14, 2009 was held at the CCTV Tower in Beijing. There was a stage set up in front of the tower for the ceremony. I was invited to give one of the presentations for the program.[7] My talk, which was presented in English and then translated into Chinese, I explained the origin of the concept of the netizen through the research in 1992-3 of Michael Hauben who was a university student doing pioneering online studies about the social impact of the development of the Internet.[8]

I described how in the early 1990s, Hauben sent out a set of questions across the networks asking users about their experiences online. He was surprised to find that not only were many of those who responded to his questions interested in what the Net made possible for them, but also they were interested in spreading the Net and in exploring how it could make a better world possible. Based on his research Hauben wrote his article "The Net and the Netizens."[9]

The netizen, Hauben recognized, was the emergence of a new form of citizen, who was using the power made possible by the Net for a public purpose, and who was not limited by geographical boundaries. The Net for Hauben was a new social institution and the discovery of the emergence of the netizen was the special contribution that he made to the field of network study.

The celebration on September 14, 2009 in Beijing thus was an event not only to celebrate the research and technological advance making possible the connection of China to the international network CSNET. But it was similarly, and perhaps even more significantly, an event recognizing the emergence of the netizens in China and hence, of a new social identity.

The September 14 event was covered in the online media and other media.[10] Being the first such Netizens Day, knowledge of the day was not yet widespread. Some net users commented that they weren't aware that there had been a Netizen Day. For me, however, the event on September 14, 2009 in Beijing was remarkable. In 1994, 15 years earlier, the first edition of the Netizens netbook with Hauben's article about netizens had been put online.[11] At the time there was much less access to the Internet and many fewer Netizens. Nevertheless, the phenomenon first identified more than 15 years ago has continued to develop and spread around the world. And in Beijing, in a city where much is new, and grand, and hopeful toward the future, there was a ceremony out in front of the tallest of structures in Beijing, the CCTV tower, recognizing the importance of the Internet and of the Netizen.

This event in Beijing was the first Netizen Day, the first official recognition of the netizen anywhere in the world. It was a celebration to honor the fact that the

phenomenon of the netizen continues to develop and spread and to be recognized as a new and important achievement of our times.

Notes

1. Yu Xiaodong, "Netizens, the New Watchdogs," in *NewsChina,* Vol 12, July 5, 2009. p. 17. The magazine website is: http://www.newschinamag.com/ See also, https://www.facebook.com/NewsChinaMag/ (requires Facebook log on)
2. Ibid.
3. This is the case of Sun Zhigang. See "Selected Cases Exposed on the Internet," *NewsChina*, p. 20. This and other examples are described in a paper by Jay Hauben, "China: Netizen Impact on Government Policy and Media Practice." http://www.columbia.edu/~hauben/j-paper.doc
4. Ronda Hauben, "Netizens Defy Western Media Fictions of China: Ronda Hauben on the 'anti-CNN' forum and Web site," *OhmyNews International*, May 8, 2008. http://english.ohmynews.com/articleview/article_view.asp?no=382523&rel_no=1, also this issue page 21.
5. Quoted in Yu Xiaodong, "Netizens, the New Watchdogs," *NewsChina*, July 5, 2009, p. 17.
6. Jay Hauben, "The Story of China's First Email Link and How It Got Corrected." https://www.informatik.kit.edu/downloads/HaubenJay-ChongqingSpeech-12Jan2010.pdf, also in this issue page 9.
7. See "Honoring the Netizen," talk presented on September 14, 2009. The url is: http://blogs.taz.de/netizenblog/2009/10/02/first_netizen_celebration_day_held_in_beijing_china_/, also in this issue page 28.
8. See for example: Michael Hauben, "Preface: What is a Netizen" in *Netizens: On the History and Impact of Usenet and the Internet*, online version http://www.columbia.edu/~rh120/ch106.xpr
9. Michael Hauben, "The Net and the Netizens" in *Netizens: On the History and Impact of Usenet and the Internet*, online version http://www.columbia.edu/~rh120/ch106.x01
10. On September 15, 2009 there was a program on the China Radio International (CRI) English language show "Beijing and Beyond" discussing the development of the Netizen in China. In the audio at http://english.cri.cn/7146/2009/09/15/481s515765.htm the program about netizens is hour one.
11. The book put online in 1994 is also now published in a print edition titled *Netizens: On the History and Impact of Usenet and the Internet*. The co-authors are Michael Hauben and Ronda Hauben. Originally published by the IEEE Computer Society, the book is now distributed by John Wiley. The print edition was published in 1997. The url for the online edition is http://www.columbia.edu/~rh120

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*This article appeared on the netizenblog on Feb 14, 2010 at: http://blogs.taz.de/netizenblog/2010/02/14/china_in_the_era_of_the_netizen/

[Editor's Note: The following is a speech given in NYC on May 1, 2012 at a meeting celebrating the 15th Anniversary of the publication of *Netizens: On the History and Impact of Usenet and the Internet*.]

My Thinking on Netizens

by Xu Liang*

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 of my disappointment. He was an amateur with the computer thinking 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 was just a substitute 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 the Internet. What is more important, we witness the power of the Internet and social media in some big things, like the 2011 high-speed train crash in China, the Arab Spring, the Occupy Wall Street movement and so on. I gradually realize that I underestimated 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 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. Traditionally a few elites manage 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 Hauben'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 early 1990s before I touched the Internet, but what is more important is that the book offers us a blueprint or a way forward for our future society based on the Internet, that is the netizen.

What is the netizen? According to the Hauben's 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. They imagine that the netizens would be the mainstream in 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 to be applied in practice. The formation of civil society in the real world tells us we can not expect a netizen society would form very soon. As civil society is based on the rule of law, the netizen society 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.

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* In 2011-2012 the author was a research follow at Columbia University in NYC.

Proposal for the World Internet Conference

by Ronda Hauben
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In 2015, I was invited to attend the Second World Internet Conference (WIC) sponsored by the Chinese government and held in Wuzhen in Southeast China on December 16-18, 2015. This conference may in the long run represent an important contribution to the global efforts to encourage international cooperation among nations to determine the infrastructure and regulations needed to encourage the growth and spread of the Internet.

Putting the World Internet Conference in a broader context, ten years earlier I attended the United Nations sponsored 2005 World Summit for the Information Society (WSIS) in Tunis. That Summit was a significant event. Participants there from around the world wanted to be part of and contribute to the development of the Internet and its future well being. The participants represented the desire of people everywhere to be on the Internet. Also I chaired and was a presenter on a panel that was part of an academic side conference held two days before the beginning of WSIS. Being at the side conference and at the Summit led me to contacts related to China and South Korea which I continued in the years following the WSIS Summit meeting.*

That academic side conference connected to the Tunis Summit was titled the Past, Present, and Future of Research in the Information Society (PPF). This academic conference made possible a focus on a more general perspective about the Internet and its development than did other events at the Tunis Summit itself.

After the Tunis Summit, I became accredited as a journalist at the UN Headquarters in NYC, first for a South Korean publication and later for a German and then also a Chinese publication. Each year at the UN I saw that the issue of Internet development would be brought up in the Second Committee of the General Assembly. And each year it was transferred to Geneva for discussion. The Tunis WSIS mandated the UN General Assembly to do a Ten Year Review in 2015 of what had happened in the 10 years that followed the 2005 Summit. Several times this obligation was raised at meetings of the Second Committee. The G77 + China called for a summit to be held at the highest levels possible of governments represented at the UN in September 2015 along with the Sustainable Development Goal summit.

This proposal for another summit-level event, however was blocked and transferred to Geneva, where it was also blocked. There was significant criticism

about how it was never adequately carried out. The G77 + China statement to the WSIS Review meeting on July 1, 2015 outlines this problem. The statement explains, "It is unfortunate that the mandate of the Tunis Agenda has been implemented selectively to suit the narrow interests of a few influential players in the multi stakeholder community…. The Tunis Agenda called for Governments to, on an equal footing with each other, carry out their roles and responsibilities on international public policy issues pertaining to the Internet. However, ten years later, tangible progress on this specific mandate … has been blocked. It is imperative that this important issue be resolved, so that all nations have an equal say in the public policy affecting the Internet."[1]

Since the 2005 Tunis Summit, not only at the UN Headquarters in NYC, but also at other venues, a number of obstacles have been placed in the path of those making an effort to fulfill the inclusive vision expressed in Tunis.

In this context China's plan to hold a yearly meeting could be a welcome development. But a question is raised about the World Internet Conference held in Wuzhen. What is its purpose? Does it represent a continuation of efforts to help spread Internet access and cooperative discussion and participation? Is it toward setting a global policy that will take up to support the continuing spread and development of the Internet? This is not a commercial question. It is a public policy question.

Perhaps some observations about the 2015 World Internet Conference will help suggest answers to this question.

Some Observations about the Second World Internet Conference

For the past two years, 2014 and 2015, China has sponsored and organized a high level meeting about Internet development and policy that is to be held on a yearly basis.

I want to share some observations about the experience I had at the Second Wuzhen World Internet Conference.

1) A substantial number of people involved with Internet development from around the world attended. I met and spent some time with people I had met previously at different occasions over the past 28 years that I have been part of the Internet community.

2) The opening session of the conference with speeches by Xi Jinping and other high officials of the member nations of the Shanghai Cooperation Organization (SCO) raised important issues and demonstrated that China and several other countries were treating the World Internet Conference as an important meeting.

3) One very interesting session at the World Internet Conference was the Cyberspace Administration of China (CAC) Cybersecurity session held on December 17. This event was by invitation only and limited the number of those who could attend. Also, it was off the record. The form and process it provided however, were greatly appreciated by those I heard from who attended. The form of the session was that there were no panelists. All who were part of the session could raise their hands and get called on for a short response to the questions raised by the moderator. This event provided for a range of views and issues which broadened the spectrum of the topic of the session. The Cybersecurity session allowed a broad set of ideas to be presented and a wide variety of voices to be heard. Contributions were encouraged from all participants at the session.

4) The student guides who were provided to help participants at the Conference were capable, serious, and took on to solve the problems experienced by those attending. Bilingual student guides were available to act as a needed interface at the hotels, the EXPO, and the conference for English speaking participants and those who spoke only Chinese.

5) The program of the World Internet Conference in 2015 was somewhat varied but there were sessions which had too many presentations to allow time for questions and comments from the audience. A greater effort to welcome presentations or panels from a broader spectrum of presenters with more panels, but each panel with fewer presenters and allowing more time for discussion, would be a better format.

6) There was discussion about ICANN, but the discussion did not adequately represent those who have a critique of ICANN's contradictory nature.

7) One major criticism from my perspective is that the focus seemed too geared toward corporate presenters. Some aspects of the conference were more like a trade show than a high level Internet conference that will support and contribute to the still needed development and spread of the Internet, especially to developing countries. There are those in developing and developed countries who need a significant role played by government and by netizens to help spread the Net. Experience throughout the development of the Internet

has shown the corporate model for Internet development is in general too narrow and focused on short term profit. A recent example is the effort by Facebook to determine what part of the Internet poor people should have as opposed to the whole Internet. (See the critique of this model as applied to India published in the U.K. *Guardian.*[2])

8) In the realm of security, there seemed more concern at the World Internet Conference with security for commerce and less focus on understanding what the particular nature of security related to the Internet would mean.

9) But given the significant endeavor that organizing and planning an annual high level conference related to the Internet and its development represents, the Second World Internet Conference organized by China accomplished something important.

In my experience at the Second World Internet Conference I found that research I have done about the more general nature of Internet development proved helpful in my discussions with government officials, academics, students and others with whom I spoke during the World Internet Conference.

In line with my experience, in a speech[3] on May 30, 2016, Chinese President Xi Jinping reviewed the historic importance of the technological revolution to bring advances to human society. He pointed to science as helping to uncover the laws of nature toward being able to meet the challenges of economic development. Along with recognizing the need to support basic research, he pointed to the need to strengthen the science and technology decision making advisory system.

One of the ways I found that can make a significant contribution to the objectives that President Xi outlined, is to study and learn from the process by which the Internet was created and from the government support structures that helped or hindered the Internet researchers' work. Fortunately there is a rich set of research materials toward such study. Some of this study is documented in a draft manuscript I have been working on titled "On the International Origins of the Internet: A Conceptual History." This manuscript explores the work of computer scientists doing Internet research and development. It also documents the research support system that was created, known as the Advanced Research Projects Agency (ARPA). The manuscript documents how ARPA functioned to support Internet research. It also explores the problems that were created when this research agency was changed into a different agency which was not in a position to provide the same needed support for the independence of the Internet researchers.

Following I am offering a proposal for an addition to the format of the World Internet Conference to build on observations about the 2005 WSIS and the 2015 World Internet Conference and on the importance of scientific research.

A Proposed Addition for the World Internet Conference

I am proposing that at the next World Internet Conference there be a section reserved for academic panels related to the history and culture of Internet development.

The panel I chaired at the PPF in 2005 can be taken as an example of the kind of general nature academic panel I am proposing. The title of that panel was "The Origin and Early Development of the Internet and of the Netizen: Their Impact on Science and Society." The papers that were presented at that panel were:[4]

•The International and Scientific Origins of the Internet and the Emergence of the Netizen

•The vision of JCR Licklider and the Libraries of the Future

•German-Chinese Collaboration in the First Stage of Open Networking in China

•Brief History of the Internet in Korea and Asia

•Netizens and Protecting the Public Interest in the Development and Management of the Internet: An Economists Perspective

I have consulted with several colleagues who have offered to submit papers for panels for the 2016 World Internet Conference if this proposal is accepted.

Also, panels could be organized around issues related to Internet and development.

I welcome comments on this proposal and if requested I can elaborate on it.

Notes

1. See "Observations on the 2nd Preparatory Meeting of the UN WSIS 10 Year Review," (http://blogs.taz.de/netizenblog/2015/11/01/2nd-prep-mtg-wsis-10-year-review/)

2. Rahul Bhatia, "The Inside Story of Facebook's Biggest Setback," https://www.theguardian.com/technology/2016/may/12/facebookfree-basics-india-zuckerberg

3. http://politics.people.com.cn/n1/2016/0601/c1024-

28400027.html (in Chinese)
4. The papers from the panel I chaired in Tunis are gathered in the *Amateur Computerist* Vol. 15 No 2 Spring 2007, http://www.ais.org/~jrh/acn/ACn15-2.pdf.

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* The *Amateur Computerist* Vol. 26 No 1 Fall 2015, http://www.ais.org/~jrh/acn/ACn26-1.pdf gathers some of these experiences and serves as a broader introduction.

The opinions expressed in articles are those of their authors and not necessarily the opinions of the *Amateur Computerist* newsletter. We welcome submissions from a spectrum of viewpoints.

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