The Amateur Computerist

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Celebration

The First Email Message from China to CSNET

(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	Institute for Computer Application of
-Informatik Rechnerabteilung-	State Commission of Machine Industry
(IRA)	(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

(Composed 14 Sept 1987, sent 20 Sept 1987)

A celebration of the 20th anniversary of the first email message that was sent from China to the world via the international Computer Science Network (CSNET) was held at the Hasso Plattner Institute in Potsdam Germany on September 18-19, 2007. Participating were international Internet pioneers, representatives of the Internet in China and historians and journalists.

From 1983 to 1987, two teams of scientists and engineers worked to overcome the technical, financial, and geographic obstacles to set up an email connection between China and the international CSNET. One team was centered around Werner Zorn at Karlsruhe University in the Federal Republic of Germany. The other team was under the general guidance of Wang Yuenfung at the Institute for Computer Applications (ICA) in the People's Republic of China. The project succeeded based on the scientific and technical skill and friendship, resourcefulness and dedication of the members of both teams.

The first successful email message was sent on Sept 20, 1987 from Beijing to computer scientists in Germany, the U.S. and Ireland. The China-CSNET connection was granted official recognition and approval on Nov 8 1987 when a letter signed by the Director of the U.S. National Science Foundation Division of Networking and Communications Research and Infrastructure Stephen Wolff was forwarded to the head of the Chinese delegation, Yang Chuquan at an International Networkshop in the U.S. From then on more and more of the scientific community in China had the possibility of email contact with their colleagues and friends throughout the world. In 1994 via a connection between China and the U.S., China established full general Internet connectivity beyond just email.

But there is more to the story of the first email message.

Over the years, especially since the middle 1990s, Internet access and Internet use has spread throughout China. Celebrations have occasionally been held to mark milestones of Internet history in

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Webpage: http://www.ais.org/~jrh/acn/ACn16-2.pdf

China. But curiously, the role of Werner Zorn and Wang Yuenfung was absent or minimized in the telling of the early roots of the Chinese connection to the Internet.

In 2004, two *Amateur Computerist* editors located and interviewed Werner Zorn in Berlin. He shared his memories of the events of 1983 to 1987 and backed his memories up with documents from that period. One editor took up to write an article about this history. His research took him 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 Zorn had hardly mentioned. Mostly missing from the history on the websites in China was the international component which Zorn had stressed.

Qian Tianbai's name is not among the 13 signatures on the first email message and there was evidence that he was not in China at the time. Zorn was able to provide a copy of the letter signed by Stephen Wolff. Through further digging and via email correspondence with two of the Chinese signatories of the first email message, it was possible to corroborate Zorn's telling of the events.

An article was written and published in the *Amateur Computerist* telling the corroborated story of the first email from China to CSNET giving justified credit to Wang and Zorn and their teams and to Lawrence Landweber of the CSNET and Stephen Wolff. A bit later Zorn was invited to tell the story at a panel planned for Nov 2005 in conjunction with the United Nations World Summit on Information Society (WSIS) in Tunis.

Present in Tunis when Zorn presented his telling of the international effort and collaboration especially between himself and Wang Yuenfung was Madame Hu Qiheng, Vice President, China Association for Science and Technology, and Chair of Internet Society of China. She rose and spoke of her friendship with Qian Tianbai but said she would investigate why the story told in China differed from the one Zorn told. Eighteen months later, entries on the official CNNIC website Internet Timeline of China 1987~1996 were changed to give proper credit to the work of Zorn and Wang, their teams and the international effort that made possible the first email connectivity between China and the world via CSNET.
http://www.cnnic.net.cn/html/Dir/2003/12/12/2000.htm

So on Sept 18 and 19, 2007 the celebration was held with Hu Qiheng, Werner Zorn, Lawrence Landweber, Stephen Wolff and others participating. It was the 20th anniversary of the first email message and a time when the same history was recognized in Germany and China. As Hu Qiheng said in her presentation,

> 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. Among them the collaborations of CANET [China Academic Network] of China with Karlsruhe University and the CSNET, BITNET of the U.S. had contributed directly to the introduction of Internet into China.

The achievement of the CSNET email connectivity with China was based on the collaboration of Professors Zorn and Wang and their teams. The achievement of an accurate telling of that history in China was the result of collaboration of Professor Zorn and Mdm. Hu. Both these achievements were celebrated in Potsdam in September 2007. This issue of the *Amateur Computerist* gathers some documents from that celebration.

The story of this first email message has been told in the *Amateur Computerist**. A video presentation by Werner Zorn of this history can be viewed at http://www.tele-task.de/page50_lecture3202.html.
*[See http://ais.org/~jrh/acn/ACn13-1.pdf and http://ais.org/~jrh/acn/ACn15-2.pdf]

[Editor's note: The following is an edited transcript of the panel of Internet pioneers at the Potsdam celebration.]

Panel Discussion: The Road to the First Email*

Date: September 19, 2007
Location: Hasso Plattner Institute, Potsdam Germany
Moderator: Dennis Jennings, first director of the U.S. National Science Foundation Net (NSFNET)

Panel:
Jay Hauben, Internet historian, Amateur Computerist Newsletter Editor
Prof. Hu Qiheng, Chairwoman Internet Society of China (ISC), Honorary Member of China Association for Science and Technology, member of Chinese Academy of Engineering

and the Chair of Steering Committee for CNNIC
Daniel Karrenberg, Chairman Board of Trustees of the Internet Society (ISOC)
Prof. Lawrence H. Landweber, Co-Founder of the Computer Science Net (CSNET)
Dr. Stephen S. Wolff, second director of the National Science Foundation Net (NSFNET)
Prof. Werner Zorn, Hasso Plattner Institute

Zorn: Hello. I welcome you and welcome the panel. I want to introduce a little the persons on the panel.

I start with Dennis Jennings. He is sitting in the middle. Because of his smart Irish/English accent, I chose him to chair the panel. He was so friendly he could not resist and say he would not do the job. But he is also a very important person in networking. Dennis was the director of EARN, the IBM driven or based European Academic Research Network in the 1980s. So Europe was for a while his job. Underneath him were the directors in the different countries. Then his most prominent job was the project leader of the NSFNET project in 1986-1987, the supercomputer network in the United States. He came from Dublin and spent a year there.

Jennings: Fifteen months

Zorn: Fifteen months. You see, he is one of the cornerstones in networking.

Larry Landweber is for me the father of scientific networking. He ran the International Academic Networkshops. He was one of the founders, perhaps the originator of the CSNET idea in the early 1980s, propagating the idea of connecting all the different networks first through email and then migrating to other services. Larry organized these academic networkshops every year in different places. So he gave me the chance to also travel around the world. It was very nice and also very productive. Larry was later president of the Internet Society for two years in the early '90s after Vint Cerf. Larry became our good friend. So and helped us, backed me, behind the stage.

Stephen Wolff was director of the networking network project within the National Science Foundation for ten years, a long time during the important years in the '80s and also in the '90s. Steve gave that important signature[1] to us. He represented the policy from the NSF side toward networking. We will ask him later why his signature was so important. What would we have done without it? It was one of my questions. And he is now with Cisco for five years.

Daniel Karrenberg is originally coming from Dortmund[2]. Dortmund was a second source besides Karlsruhe[3]. We were two friendly connected institutes. Dortmund was origin coming from the Unix network side and Karlsruhe by CSNET. Daniel emigrated quite early to the Netherlands. We may ask why you emigrated and went to the Center for Mathematics and Informatics (CWI) in the Netherlands, the Institute which later ran the RIPE registry which became one of the most important registries in the world. RIPE covers 30 percent of all IP addresses, very important, which cover a big part of the northern hemisphere.

Stephen and Daniel have been honored with the John Postal Award, Stephen in 2002 and Daniel in 2001. Is that correct?

Karrenberg: 2001, I believe. I am not sure.

Zorn: I think you were honored because of everything, both running services and also for your contribution in the IETF with the RFCs to prolong the life time of IPv4 address space through Classless Inter-Domain Routing (CIDA). That was one very big contribution. The Internet is alive more than ten years later because CIDA solved a problem threatening the Internet. You can perhaps say a few words to that.

And Stephen Wolff of course for his important role with a big governmental project.

Madame Qiheng Hu has introduced herself through her speeches while the others were only sitting and listening. She is the president of what I guess very soon will be the largest Internet Society of the world.

Hu: The Internet Society of China which began in 2001

Zorn: China has more than 160 million Internet participants.

I think Mdm. Hu entered networking in 1994.Was that the year when you entered into network management?

Hu: Not really management, merely I was among the people who did urge the Internet to enter China.

Then in 1994, with your help, Prof. Zorn, we moved the .cn domain name server from Karlsruhe University to China where it started to work on May, 1. In 1997 the CNNIC was approved by the Chinese governmental authority. The number of Chinese people online started to grow fast. In May 2001 we established the Internet Society of China, and, to our great honor, we successfully hosted the 2002 ISOC Conference in Shanghai. Today, the number of Internet users in China approaches 200 million.

Zorn: Last, before I sit here modestly, I want to introduce Jay.

Jay Hauben helped me to bring our story into recognition and he plays a role of a historian here on the panel. He is at the Columbia University and edits the Amateur Computerist newsletter or magazine. And Ronda Hauben will give a speech on Netizens this afternoon. She coauthored a book about netizens.

Jay is the most, most accurate writer and researcher I ever met. For, whatever I said, he answered, "Prove it." So I had to set up all the contacts through my old Chinese friends and get material out of my archives. And he pushed and pushed and pushed me. And finally he believed what I said. But I had to prove everything. And now on the panel his role will be to raise a finger and say all what you do should be written down otherwise it will be forgotten. That is also maybe one of the topics of our discussion, to keep that in mind, and on paper not only on CDs.

Ok. So far my introduction so you will know why these people are all my companions in different stages of what I did. I am really happy that you all came here. Without any one of you, we would not have completed that route. So I really feel happy now to have everybody here that you saw in my slides. Everyone is here exact perhaps Dave Farber but he was a little bit further from me. Now I want to express my thanks again that you have come so we can have a small but very high level Internet summit. Would you agree?

One more question. Most of us met last at the Internet Society yearly conference in Washington in 2002. I think that was the last INET conference. Why wasn't the tradition continued?

Landweber: I think that their time had passed.

Zorn: That's an interesting point.

Ok. Now I stop with the introductions and sit here. And Dennis it is your turn now.

Jennings: Werner, thank you very much indeed. And thank you for managing all those introductions which saved me a tremendous amount of work as the moderator of this panel.

First of all, my apologies. I speak neither German nor Chinese. So I will speak in English and I'll do my best to be understood.

It occurs to me, as I look around and as I talk to people young and indeed old that now use the Internet, that most people just simply assume the Internet is there. It works. All the things that we use, that they use day to day has always been there as far as they are concerned. And they have no conception of the background or the history or the struggles that went into creating this thing called the Internet. That's the first question I would like to put to each member of the panel. What now seems so simple and so obvious, Larry, was it always like this or were there, was it different? What are the war stories behind the story?

Landweber: If we go back to the 1980s, early 1980s, there was a research project that DARPA[4] had supported that developed TCP/IP. But there was no Internet. In the early 1980s, the U.S. Defense Department and the National Science Foundation were interested in exploring building the Internet. On the other hand, there was an international standards effort called OSI for Open Systems Interconnection and officially every government in the world except perhaps Finland supported the OSI effort. Hundreds of millions, perhaps billions of dollars were spent on the development of a protocol suite that would become international standards. And most countries of the world, the national science foundations would not put money into internet development including in Germany and also the United States except for the Defense Department, NSF and maybe the Department of Energy. There was very little support for the Internet. Companies like IBM and Digital

Equipment were actively not supportive of the Internet. So in fact there was a major struggle to get the Internet supported, Internet development and the building of testbeds initially.

Should I keep going for a few minutes?

Jennings: Yes, please.

Landweber: So here we are in the 1980s and the Internet is really a stepchild and not very far along. Well, myself, Dave Farber, a couple of others proposed CSNET[5] and CSNET was funded by the National Science Foundation. Soon after, I went to Bob Kahn who was the DARPA person (of Cerf and Kahn, who first conceived of the TCP/IP protocol). Bob gave us permission to set up international gateways so that email and other connections from other parts of the world would allow data to flow into the U.S. networks including the ARPANET and other Internet connected networks. One of the very first connections we made was to Germany. I never throw anything out so I have early email from 1983 that I think is the first email I got from you, Werner, asking about a connection to Germany from CSNET. And we approved the gateway and worked on it. Now there were problems. Werner has talked about the technical problems. I mean everything was flakey. The software we had for supporting Internet protocols was not robust. The network connections were not robust. As you heard, he had to tie together a satellite link, and X.25 links and then go across to the United States and use this PMDF which was mail relay software. So it was not trivial technically.

But I guess as hard, maybe harder were the political problems. So, in the United States, Stephen Wolff gave us permission to have the gateway to China in 1987. What was not mentioned was the next day he told us permission was revoked. It was the White House that had intervened and told Steve that permission was not to be given. And Steve had this wonderful philosophy which helped make the NSFNET so successful. Which was, you don't ask permission in advance. You ask forgiveness afterwards. And so he, I think, maybe winked at us and we also decided well it's just the White House and we're academics. The White House, we can ignore them. So we actually ignored the order to turn off the connection to China and that was something that I think was very important.

But then there also were political problems that we experienced with Germany which maybe Werner is not completely familiar with. I was getting messages from DFN, the German National Network. DFN was 100 percent behind the OSI effort. Very, very large amounts of money were being spent by DFN with German industry and universities to develop the OSI protocols. Sometime around 1986 or 7, I started getting messages from DFN people asking us to disconnect the gateway to Karlsruhe and connect directly to DFN. My view is that you support the people who have done the work and who are the good people. And in fact the workshops that I organized each year were set up to bring the visionaries from each country together, the people who really were beginning to investigate the Internet. In Germany that was Werner Zorn. And so CSNET refused to do the disconnection. I never throw anything out so I went and read all the emails which were asking me to do that. So there were political problems also. We learned a number of lessons from this activity.

Jennings: Daniel, can you pick that up because certainly I remember the protocol wars. One of the astonishing things was not just the amount of money that Larry has referred to, but the viciousness, the interpersonal fighting that went on. The people were trying actively to disrupt non OSI actively. Daniel, do you want to talk a little bit about that?

Karrenberg: OK, I'll talk a little about that but I won't go into the fighting part. But first just to explain a little bit the question about "Was it obvious?" No, it was not obvious. I was in a place. I was a student, an undergraduate student in Dortmund. The only thing we wanted was email. We didn't have any sort of political agenda or whatever, no vision. We just wanted email. We did not have any money. We still wanted email. And we found some allies in the Computer Science department there. They had some visiting professors who actually said we will only come to Dortmund if there is email. This was in 1982, I believe '81, '82 timeframe. And we were also running Unix at the time which wasn't quite so popular and we were only allowed to do that at night. During the

daytime the computers were used for serious purposes. In the evenings we could do Unix. And at that time we heard about this Unix network, this UUCP network that was going on. We had all the software, so we didn't have that problem. But how do you connect? How do you connect internationally? The only way we could do that was through the telephone, very much like Werner's first attempt to do the China thing.

We had a little bit of an easier task because we only had to connect to the next country, the Netherlands. And we did that. We found some modems and connected to them and got our email and our net use.

At some point the phone bills were so significant at the departmental level and questions were asked. And we explained and that was fine. Then other places in Germany running Unix also wanted to connect and they connected to us. This was purely 'store and forward'. Your email mail would take a day to get somewhere because it had to be written on one computer, stored there. They had to make a telephone connection, stored on the next computer, store and forward. We could have email conversations with like-minded people in the U.S. for instance that would be a message a day. But that was tremendous. I mean compared to postal mail and so forth. That was fine.

At some point this grew and I remember very vividly how we were trying to find ways of actually keeping it going financially. It was very, very difficult in those times. And if you are sitting in an institute like this, it's hard to imagine but twenty years ago, more than 20 years ago universities were basically state institutions, run by state rules, run by national rules and run by civil servants. It was incredibly hard to take money into those places, especially if it wasn't like for big projects, it was just to pay the phone bill. And so we had to overcome that kind of thing. And the next thing was we had to break the law because at some point we wanted faster speed and automatic dialing so that when the international phone rates became cheaper, I think it was 10:00pm or 11:00pm at the time, we would not have to go into the computer room and actually dial Amsterdam. So we wanted an autodialer and we wanted quicker modems. And it was actually on the statute books a crime or an offence, I'm not sure. The title of the law, the German title of the law is Fernmeldeanlagengesetz I don't know whether it still exists. But it was a criminal offense to connect anything that was not approved by the state run PTT to the telephone network. And we were doing like ok do we really want this? There is approved equipment but it is way beyond our budget. So we went to our director, Dr. Rudolf Pater, who is one of the other unsung heroes of this and said we have this problem. He said, "ya, we don't have the budget." We said we have this other solution. We know it works. We know it won't break the phone system. They use it in the Netherlands. Can we use that? And he said, "I don't want to know about it." So we said we want to buy it and it's not that cheap. It was like about what today would be 2 or 3 personal computers worth of money. And we said we have already talked to some of the visiting professors and some of the other academics and we will just all chip in and we will buy it. He said, "Na, let me see." And then sort of magically a week later we were asked, what is the specification of this stuff? Where can we buy it? And it was actually bought with public money. And I never know what it was supposed to be that we ordered there. That kind of stuff. And that kind of stuff is really the resistance that you have to overcome. And then the criminal offence too. And all these kinds of things. And of course, we also had this experience when this grew and had like 50, 60, 70, 80 places connected in Germany, we faced resistance like, "You are not doing the right thing. You are just making things work. We want to do the politically correct thing." And we were a bit more resilient to the kind of approach that Larry just related because we were actually funded by a big number of participants and we weren't in that sense part of the academic establishment. But it was quite clear that there was tremendous pressure put on the university to actually either stop this altogether or play it down. Dr. Pater was one of the people who actually resisted that.

Can I do one more minute?

Jennings: Yes, please.

Karrenberg: One day, we have this meeting every week to see how things are going with the networks thing and he goes I got a letter from the dean of the department. He commends us on our good work facilitating the visiting professors and

all that kind of stuff. And he is really happy with what we are doing. This is fine.

At the same time I was in another function. I was a student representative in university government. Two weeks later in my pile of papers this same letter appears. And at the end there is a paragraph that says, "and by the way you are not supposed to become the German central hub of this." So I see this and go hmmm and take the letter and go to Dr. Pater's office and say, "Hey, did you miss the last paragraph?" And he goes like, "One, two, three, … Daniel, I chose to ignore that."

Jennings: Steve, tell us about what you chose to ignore.

Wolff: It was not as much a matter of ignoring things as trying to make it obvious to the right people. You see, by the time I got to the NSF after Dennis had broken the soil, the notion of the Internet was obvious to computer scientists because they had CSNET. They knew it worked. They knew what it would do. It was obvious to university IT departments because they had BITNET. They knew what it could do. And it was obvious to computational physicists because they had MFENET and NSFNET and they knew what it could do. But in total, that's a very small population. And in fact people who ran much of the NSFNET, the regional networks were based in state run universities and many of them had bet their careers and their jobs on making the network work. So part of my job was to make it obvious to the people who gave them money. So I spent a great deal of time talking to associations of state governors, to a group of comptrollers of states telling them that the money was not being badly sent. So most of my job was actually marketing, trying to convince people that this was a good thing and the money was not being wasted.

It seems as though each consistency had its own vision of what the network was going to do. I'm not sure what computer scientists thought about it. It was very clear what IT professionals wanted from it. And, it was perfectly obvious what computational physicists wanted out of the network. And they haven't changed in twenty years. They wanted more, faster. But what is clear to me now is that the essential thing is that everyone has a vision. The hardest part of my job was trying to communicate that vision to sufficiently many communities so it would catch hold somewhere.

Jennings: Werner, let's come back to you. Tell us a little bit of the battle in Germany.

Zorn: Larry told something about the political pressure in the '80s. When we started with the services, we expected that everybody would be happy in the German networking community. But especially in the German Research Network, the DFN, just the opposite was the case. I asked myself, what, what is going on here? We succeeded in our project but then those who gave the money or has the job to do that refused to accept that. That was the signal that something is wrong in the system. I was convinced that if their position is wrong ours must be better or right. So it was really a thing between right and wrong. And of course we were fighting for our way. Steve's philosophy, Larry told us, was, don't ask for permission before but ask for forgiveness after. It was the same thing except I did not ask for forgiveness. It was a criminal act to sign the contract with Larry. Perhaps I did not read it completely, but on that little sheet of paper was written that you are allowed to use our software and install it and run the services for the whole Germany. So that was the thing that we were the only one, the only installation, as Daniel had been in Dortmund for the Unix community. And that was the thing that upset the DFN who thought they were the institution, the only one being legalized to do that job. That was a total misunderstanding of what open system means, by the way. Open system does not only mean to use open protocols but also to let the things grow bottom up and not any more top down. That's why we were convinced we were right with our approach and Larry backed us of course. If he would have drawn the plug we would have been lost of course.

But on the other end, from the technical side we were faster developing the infrastructure than they could follow. That was the real thing. Right? If you have an isolated service somebody can say migrate it to a different installation. Move it there and hosting is done there the next day. But it became so complex. Perhaps it was visible on one of the charts, what was the route that the GND was supposed to take over. They refused. Because they said they were not able to run it without any inter-

ruption. It was clear if the email service would not run for two days the users would really give, run a big protest. And so we worked in parallel and then reached the good end where we moved to the full Internet suite in 1989.

And then we thought the game is over, the battle is over. But then DFN moved to TCP and did the same game but then concentrated on Dortmund and really got vulgar with DENIC, the registry for Germany. Then the Dortmund people had to fight and I could observe what happens.

A mixture of thinking, having the right vision or the right way and doing technical development faster than them helped us to survive.

Wolff: Your biggest sin was success.

Jennings: This is the extraordinary thing, that Steve just said is that the biggest sin was that everyone who was doing this work at the time was doing it sort of unofficially outside the official European government, European Union funded Open Systems Interconnection approach to networking and outside the approaches that were approved by the PPTs.

Let me tell you just a little bit about the PPTs. Back in '83 when the early EARN leased lines were connected and that's EARN, the European Academic Research Network, the European part of BITNET that I was involved in. The France Telecom installed their end of the line to Rome, one of the major links and they issued the bill for it. But they refused to connect it because of the issue called "passing of third party traffic." It was against the law for one party to take traffic, a party, the third party, to take traffic from the first party and pass it on to another party. Get this right. To take first party….

Karrenberg: It was illegal to compete with the PPT.

Jennings: That's the summary. It was illegal to compete with the PTTs in every aspect of communication. In fact in Ireland the law was so written that technically it was illegal to speak and to use the air between people to communicate because that was actually covered by the communications act. So it was a regulatory environment that was very hostile then to doing ad hoc things that actually worked and that continued on.

Jay, as a historian what lessons do you draw from this early history of the 80s?

Hauben: I think the lesson to draw is to realize that first there was a vision, a deep vision, from JCR Licklider and the people in the 60s. That vision was of the Intergalactic network. Somehow, by connecting a few, you were eventually going to connect everybody. But it's also true if anything good ever happened it is because some good people worked very hard over a very long period of time to overcome the obstacles. I think we know something real happened because it was so hard to get there. I think each of these stories contributes to the fact that despite the obstacles people have an understanding that what they are doing is sufficiently valuable and important that they will continue trying to do it. The job for the historian to gather up these pieces which are not very well documented and put them together to show the grand flow that has come forward.

The surprising thing was that when Werner told me the China email story, it was a good story but is it exactly accurate? So I looked on the Internet and in books. I found that there was a totally different story being told that didn't have an international component. For whatever reason, the main essence of the first email China story, which was that all of this activity was international, was missing in the telling of it. To clear that up it required digging. When I dug I found Werner was telling it straight.

I think the value of what we are doing here is we are hearing from some of the pioneers. So we are getting the clues of how to get the history right. It is very important that the stories be known and be told and be gathered up. So I hope there will be more panels like this one.

Jennings: Excellent. Larry, tell us a little bit about the Landweber Networkshops because those networkshops were key.

Landweber: Go back to 1982. I went to a meeting in London that Peter Kirstein had. And I hadn't traveled very much and I decided, gee wouldn't it be nice to see more parts of the world. I had been a theoretician. Mostly I went to one conference a

year or two conferences a year. But now I had gotten involved in CSNET and had switched my work to networking sometime in the 70s. And it was exciting and by coincidence I started being in contact with people around the world who were thinking about national networks, sometimes the Internet, sometimes like EUNET, and sometimes EARN, BITNET and there was no easy way for people to communicate. So what I did was try to identify one or two people in each country. As we went along the number of countries expanded. So that we brought them together once a year in a nice place and spent several days exchanging ideas, exchanging software, talking about plans and it was a way of supporting the continuing development of the network. Daniel was at, you were at a couple of these, right? I think Dennis was. I met Dennis 1984 in Paris and Werner was and Steve was (were you at, no maybe you weren't) 1984. And so gradually, first it was people from North America and Europe. Then there were some people from Latin America. Then there was Kilnam Chon from Korea, Then there was Jun Murai from Japan. And then there was Florencio Utreras from Chile, etc., etc. We just gradually—Juha Heinänen from Finland and gradually we expanded and it built a community and that community was very important for sharing ideas. Might I add one more thing?

Jennings: Please.

Landweber: OK. For me all of this has a real important geopolitical, economic, global lesson. And it is that governments have no role in deciding which technologies are superior to other technologies. That's the lesson. In the case of the OSI activity, governments around the world spent billions of dollars in an effort to build a technology that was poorly conceived and not well executed in planning it. They very actively objected to and worked against the Internet.

Now, a former student of mine was at the European Commission and at one point he was in charge of supporting networking at the Commission. I always used to make a point of thanking him whenever I saw him because through his efforts he helped American industry. I mean, if you go back to 1980, U.S. industry, European industry, Japanese industry were on an equal par when it came to telecommunications. Governments around the world by suppressing the creativity of their industry relating to the Internet made it possible for the major companies in the Internet field to initially develop in the United States. And I think it significantly for a period hurt their economies. And so this is something I hope will be written some times by historians as a lesson. There is a wonderful paper by François Fluckiger from CERN which discusses this. It's about 10 years old,

Jennings: Fifteen

Landweber: fifteen years old which actually talks about the European experience. That's the lesson, the global lesson that I have from this.

Jennings: Steve, pick that up. Governments shouldn't mandate technology? Isn't that what we did in the NSF? Didn't we, didn't I go around and particularly say it has to be TCP/IP?

Landweber: No. No.

Wolff: But we did that. Yes. But we were lucky.

Landweber: May I interject.

Jennings: You may.

Landweber: There was a battle. The NFSNET by accident became Internet. There was a committee and if there was a battle, the physicists wanted DECNET. They wanted to have connections from their universities to supercomputer centers and they wanted DECNET. They didn't want Internet. There were a few people, like Ken Wilson, the Nobel Prize winner who wanted Internet. And so there really was also within the U.S. government…. You were there when that was happening.

Jennings: I fought that happening.

Landweber: and so it wasn't obvious that Internet was going to be the backbone of the NSFNET.

Jennings: But Steve

Wolff: No, it wasn't obvious. But it was a battle that, Dennis, you fought and I fought as well be-

cause I think it was clear to us where the smart people were. It is usually a good bet to ally yourself with intelligent people and it seemed to us that the most intelligent people were those who were explaining why TCP/IP were good protocols and what the difficulties were with DECNET and the other various protocols which were being touted at the time.

But I wanted to say something to Jay. I am trying to remember the source of a quote which I think is relevant to your activities. It's from a German author and I do not know the German but the English translation goes something like this: Those things and deeds which are not written down are condemned to oblivion and given over to a sepulcher of darkness.

Larry, I am very grateful to you for not having thrown anything away because the original source material is all that we have to reconstruct the actual history.

Jennings: Daniel can you give us a quick comment because it is coming towards the time. Given that we have talked about all the difficulties, all the battles, how did the Internet actually come to Europe?

Karrenberg: Oh, that's a tall order. [I think] Let me deviate slightly but still have some essence into the story. I think it came many, many ways. The thing about, one of the reasons the TCP/IP protocols were better than others is that they allowed the network to grow without any central authority, without any central control, central network center, or whatever. And so people made a link here, a link there, a link there. Werner converted his links to the U.S. I think at some point to IP. We did the same. At some point we were just doing the store and forward thing I talked about earlier. And then it became economical to buy actually leased lines. Then we had the leased lines it was quite easy actually, it was like flipping a switch to put TCP/IP on it. And we didn't have to ask anyone in the U.S. permission besides the people that we were actually talking to. Whether we could connect to the NSFNET and things like that was a different thing. But just to have this TCP/IP link, was just you call them up or send them an email actually and say hey um tomorrow at 10:00 we switch UUCP to TCP/IP and PIP and that was that. And then when we had more links into different countries that became leased lines it was very easy to convert them as well one after another and it grew organically. And somebody else said I have an island here that uses TCP/IP. Let's make a link and connect the islands. The Internet! That's where it came from. So that's how it came. That's the one reason why TCP/IP was better. The other, obviously, is that it did not concern itself so much with the applications like any of the other proposals did. The applications are actually outside in the end systems rather than in the network. The physicists could do their thing over it. The computer scientists could do their thing over it and so on.

Jennings: It was an internet.

Zorn: For me the approval by the NSF was one of the important things for us to maintain the email service to China. I am sure in China that approval was very little known. There were many other attempts to draw lines and links to CERN and elsewhere. Other groups tried their best to get a connection to some situation they worked with. What would have happened in the whole interconnected networks with BITNET and everything around if the NSF would have said no?

Landweber: To the China link?

Zorn: To China. Politically "no." Like you say, no nothing to North Korea, nothing to …. Was it policy to control every network with every exit and whatever in China? Without permission, it would be thrown away and the links would be cut or what?

Jennings: Let me address the question and see if people agree with me. I think what would have happened, it would have been done anyway. Following Steve's maxim, Yes it was nice to ask for permission and yes it was very nice to get the permission. But I think back then we would have done it anyway and then asked for forgiveness. And I think we would have gotten away with it.

Wolff: Do you suppose I didn't think that? {Laughter}

Jennings: Maybe we recognized it was going to happen anyway.

Hauben: I don't know if anyone would have paid attention. Who down the line would have actually said, "I am not going to pass on the email message that's come. I am not going to do relay these email messages any more." I don't know which human being in the chain who had invested so much of his or her time and energy and spirit would have said, "OK, I'll be the one who doesn't continue it."

Landweber: If there were not even the hint of the permission and if, remember we were depending on the Defense Department

Jennings: Yes

Landweber: Bob Kahn had I think a very similar world view to Steve which was things happen and he was hoping the network would grow. But if his bosses had learned of it, the people who are the real military people, they could have made us stop.

Jennings: They were scary people back then.

Landweber: There were plenty of people and there were countries where we would not have attempted. We would not have attempted a link to North Korea for example in those days.

Jennings: Steve.

Wolff: One of the consequences might have been that it would have taken longer for what happened in 1994 because the precedent set by getting permission from the United States government for an interconnection. I think and only Madame Hu can speak to this but I imagine it set the stage for certain things to happen within China so that later when the formal, basically the IP connection was sought that was a very formal ceremony and it was an actual agreement between governments. And I think that might have taken longer to happen if the stage had not been set by the first connection.

Jennings: So Madame Hu, do you have some comments on the battles these people fought to get the Internet going?

Hu: The description of the early days when the Internet entered China may differentiate depending on the different events the different individuals had been experiencing at that time but the main stream is quite clear that the scientific research and international exchange played the role of the engine. Also we should not leave out the High Energy Physics Institute of CAS, with their partner, the SLAC in Stanford University. The earlier digital communication between the latter partners took place even for 1 year ahead of the first email sent by Wang Yunfeng and Werner Zorn and their teams to Germany, via an X.25 telecommunication link.

Looking back to 1994, at that time my feeling was the obstacles were not in the technology. Because the key person of our technology team, Professor Qian Hualin and others, told me that they had full success in the test with Sprint. There were no technical obstacles. Everything is ready. Just the gate is still closed somehow. So I remember very clearly when I came to Dr. Neal Lane, the NSF Director at that time, to ask for help. That was in the early April, when I was in Washington DC as a member of the China delegation attending the U.S.-China Combined Committee Meeting on the collaboration in Science and Technology between the two countries. Dr. Neal Lane immediately made a chance for me to talk with Stephen Wolff. Stephen just told me, "Don't worry. No problem. You will be connected to the Internet." I was not very sure about that. I asked him, is it that simple? He said yes it is simple. No contract, no sign, no document, the only document we had provided before that was the AUP (Accepted Use Policy. And then after a few days I got the news from my colleagues in China that the connection is done, it goes through smoothly. Everything is OK. Then I thought, "Oh, Steve Wolff is really great!" This man had a magic stick. The magic stick pointed and the gate opened. Is it that simple? I guess it is.

Jennings: On what better note to end.

With all the hard work and all the battles, at the end of the day it took a little magic to make this fit together and to forge the links to China to enable the first email twenty years ago from China to the rest of the world.

Ladies and Gentlemen, Panel, thank you very much indeed. {Applause}

*Transcribed from the video at: http://www.tele-task.de/page50_lecture3204.html. Slightly edited by some of the participants.

[Editor's note: The following is a news report, on Xinhuanet, based on an intervew with Werner Zorn, Berlin, Sept. 19, 2007.]

"Across the Great Wall we can reach every corner in the world."

by Liming Wu
(English translation by Virginia Zorn)

This is the first e-mail mesage sent from Beijing abroad on Sept. 20, 1987. This also means that the internet era knocked on the door of China.

Professor Werner Zorn, who was then a computer science professor at the University Karlsruhe in Germany and who sent this first email from China 20 years ago, told the journalists when he was interviewed by the Xinhuanet:

In September 1987, Professor Zorn visited Beijing for a scientific conference. After four years of preparatory work and two weeks of extremely hard tests the joint German-Chinese team successfully connected the Beijing Institute of Computer Application (ICA) and the computing centre of University Karlsruhe. On Sept. 20, he made the draft of this first e-mail and together with Professor Yunfeng Wang successfully sent it to one of the computers at the University Karlsruhe.

Prof. Zorn, who helped China to get into internet, remembered: "The first response to the mail came from an American computer science professor Larry Landweber. Later on there were more and more responses from all over the world."

Professor Zorn is known as the father of the Internet in Germany. Germany entered the Internet on Aug. 2, 1984 with the first e-mail received by Prof. Zorn from CSNET. In 2006 Zorn was awarded the Federal Cross of Merit for his efforts.

Prof. Zorn recalled that it was out of the simple wish to facilitate the communication between the computer science professionals to connect the computer networks from both countries. A letter required at that time at least eight days and telephone or telegraph was extremely expensive.

After the first success to help China to get into the internet, Prof. Zorn continued to help China with its development. On Nov. 28, 1990, Prof Zorn registered .CN domain name for China, and set the primary DNS server in University Karlsruhe. This server was handed over to China in 1994.

Zorn said he did realise the epoch-making meaning of the first e-mail sent from China. "It was a sensational event." But what the internet means today, was out of his imagination at that time.

Twenty years later, email has become the most popular communication media now. China, with 162 million internet users, is the second largest internet country after U.S.A. The internet has become an indispensable part of life for many Chinese people and the internet technology is enjoying a dramatic boom.

Twenty years have passed. Prof. Yunfeng Wang, who worked together with Prof. Zorn to get China on the internet, passed away ten years ago. Prof. Zorn is now 64 years old and would retire soon. What comforts him is, that the Chinese People have not forgotten him. Zorn said, he often got invitations to visit China.

On Sept. 18 dozens of scholars worldwide gathered at the University of Potsdam, in Germany, to celebrate the 20th anniversary of the Chinese internet. Professor Qiheng Hu presented in the name of the Chinese internet community a crystal award to Prof. Zorn. On the crystal award is inscribed:

We hereby present our sincere appreciation to Professor Werner Zorn, for your invaluable support to Internet's early development in China.

[Editor's note: The following is a speach given on Sept 18, 2007 at the event to commemorate the 20th anniversary of the first email sent from China to Germany.]

Cordial Thanks to Our Friends

by Qiheng Hu
Internet Society of China, CNNIC

International collaborations in science and technology are the driving forces for computer networking across country borders and facilitated early Internet development in China. Among them, the collaborations of CANET of China with Karlsruhe University in Germany and the CSNET, BITNET of the U.S. contributed directly to the introduction of the Internet into China.

China connected to CSNET and BITNET, and the first email sent from China to Germany

Professor Werner Zorn attended the first CASCO Conference of 1983 in Beijing. To reduce the cost of data transfer between scientists, and make the communication more effective, Prof. Zorn thought of the possibility of computer connection with Chinese counterparts. The major collaborator was a team led by Professor Wang Yuen Fung of the Institute of Computer Application (ICA), China.

In July 1985 Prof. Zorn wrote a letter to the former Chief Officer of Baden-Wuerttemberg and suggested the program with budget application. In Autumn 1985 the budget was approved.

In 1987 the connection between Germany and China had had some troubles, Zorn asked for help from the CSNET International Collaboration Division Leader, Lawrence H. Landweber. In September 1987 Zorn arrived at Beijing to test the connection with the software CSNET-BS2000 which was authorized by Lawrence H. Landweber. November 1987 the project for computer connection between China and the U.S.A. suggested by Executive Chairman of CSNET David Farber and Dr. Landweber was approved by the NSF.

With the support from a team at Karlsruhe University led by Prof. Werner Zorn, the group in the Institute of Computer Application in Beijing led by Prof. Wang Yuenfung and Dr. Li Chengjiong built up an email node in ICA, and successfully sent out an email on September 20 of 1987 to Germany. The email title was: "Across the Great Wall we can reach every corner in the world".

In November 1987 a Chinese delegation was invited to participate in the 6th international network workshop held in Princeton. During the conference a congratulatory letter from NSF recognizing the connection of China into the CSNET and BITNET of the U.S., signed by Dr. Stephen Wolff, was forwarded to the head of delegation, Mr. Yang Chuquan.

Registration of the CCTLD .cn

In October 1990 Prof. Wang Yuen Fung on behalf of the ICA , authorized Dr. Zorn to register the .cn ccTLD at the InterNIC in name of Chinese Computer Network for Science and Technology CANET .

Dr. Zorn registered .cn in 26 November 1990 and the Administrative Liaison for ccTLD .cn was Prof. Qian Tianbai of the ICA.

Starting from 1991 the DNS server for the ccTLD .cn had been resigned to University of Karlsruhe through a trusteeship to Dr. Zorn.

On 21 of May, 1994 CNNIC, which is located in by the Chinese Academy of Sciences, was established and authorized by Chinese Government to move the ccTLD server for .cn to China.

China connected to the Internet: April 1994

In June 1992 at INET'92 in Japan Prof. Qian Hualin of Chinese Academy of Sciences visited the NSF official who was responsible for the International relations in the Division of Computer Networks to make the first discussion on the issue of China connecting to the Internet.

At INET'93 of June 1993, Chinese participants repeated the request of connecting to the Internet. After INET'93 Prof. Qian Hualin attended the CCIRN (Coordinating Committee for Intercontinental Research Networking) that made a special topic in the program the issue of China connecting to the Internet. The dominant response was strongly supportive.

In April 1994 Vice President of the Chinese Academy of Sciences Dr. Hu Qiheng visited the NSF to meet with Dr. Neal Lane and Dr. Stephen Wolff, appealing for the China connection to the

Internet backbone. The request was fully supported by the NSF.

On 20 of April 1994 China at last succeeded to make a full-function connection onto the Internet.

For all the support and help we received from our overseas friends during the early days development of Internet in China, today when the Internet has greatly contributed to the Chinese economy and social progress, we feel deeply grateful and I would like to take this opportunity to extend our cordial thanks to our friends.

First of all, I'd like to thank Prof. Werner Zorn and the HPI of Germany for providing this opportunity to me to come here to express gratitude on behalf of the Chinese Internet Community to friends who have provided invaluable help and have contributed to the early development of the Internet in China.

Our sincere thanks go to **Prof. Werner Zorn** !
Our sincere thanks go to **Dr. Stephen Wolff** !
Our sincere thanks go to **Dr. Lawrence Landweber**!
Also we thank **Dr. Daniel Karrenberg** and **Dr. Dennis Jenning** for their support and contributions to the early days' Internet in China!

The Internet is changing the world, also China, opening the door to the information society. We're grateful to the Internet creators. We're grateful to the world Internet community: so many colleagues from different corners of the world have provided their help and support for the Internet to develop in China.

[Editor's note: The following article is based on an email message from Mdm Hu. A fuller account of "Growth of the Internet in China since 1987" can be viewed at http://www.tele-task.de/page50_lecture3203.html. The slides for this presentation are at: http://www.hpi.uni-potsdam.de/fileadmin/hpi/veranstaltungen/china/slides/070919_S1_2_HU_Internet_in_China.pdf.]

Early Steps Toward China on the Internet

by Qiheng Hu
Internet Society of China, CNNIC

The description of the early days when the Internet entered China may differentiate depending on the different events the different individuals had been experiencing at that time but the main stream is quite clear that the scientific research and international exchange played the role of the engine. The essential motivation to connect to the Internet was to decrease the cost of data and information exchange between the collaborators, e.g. the Institute of Prof. Wang Yunfeng and his team, with the Karlsruhe University in Germany, also the High Energy Physics Institute of the Chinese Academy of Sciences (CAS), with their partner, the Stanford Linear Accelerator Center (SLAC) near San Francisco. The earlier digital communication between the latter partners took place even for one year ahead of the first email sent by Wang Yunfeng to Germany, via a X.25 telecommunication link. As one of the key persons for the Internet entrance into China, Professor Qian Hualin told me, both of those Institutes were connected to the world via the DECNet links. The High Energy Physics Institute (HEPI) of CAS was linked to the Energy Sciences Network (ESnet) of the U.S. Department of Energy (DOE), as the only partner from China side.

Today we can say for sure that the very first true Internet connection in China was implemented by the triangle network of the Zhongguancun Area, National Computing and Networking Facility of China (NCFC), in April, 1994. The NCFC was a World bank loan project, aimed on the establishment of a supercomputer center, shared by the research institutes of CAS in the Zhongguancun Area, the Tsinghua and Beijing Universities. I was the chairperson of the Decision-making Committee of this project. In 1993 the Committee took a decision that was the pursuance of the researchers and teachers that we should try our best to link to the Internet. The first demand was budget. This decision became feasible only because the MoST (Ministry of Science and Technology) and NSFC (National Science Foundation of China) made the financial support for the networking beyond the NCFC budget.

The second issue is the possibility to have the acceptance from the U.S. side. To make this issue solved, efforts have been made through all possible diversified channels by many people, including Chinese and our friends from other countries. Professor Qian Hualin and Ma Yinglin of CAS participated in some of these activities. As Prof. Qian told me, in June 1992, at the INET'92 in Japan, he

had the first talk on this topic with Mr. Steven Goldstein (at that time he was responsible for the international connections of U.S. NSFNET) which was followed by many talks with him later in other chances. Qian considered the most important event the meeting convened after INET'93. Qian had talked with Steven Goldstein, Vint Cerf, and David Farber, etc. to seek for the understanding of the pursuance being connected into the Internet. Professor Richard Hetherington, director of Computer and Communication Department of Missouri-Kansas University was among the foreign friends who supported our pursuance. During that time Qian Hualin and others had many discussions with Sprint (authorized by NSFNET for international connection) on the technical details. After the INET'93, in Bodega Bay, San Francisco, the CCIRN (Cooperation and Coordination for International Research Networks) took place. The issue of the China connection was listed in the agenda. As Qian Hualin remembered, all speakers supported the acceptance of China. Professor Kilnam Chon, at that time the chairman of APCCIRN, provided a ride to Qian Hualin, to attend this important meeting.

As the technical team leader from China side, Qian Hualin had gotten information in early 1994 that China will be connected. The test of the satellite channel started in March 1994 and in April 20, 1994 implemented the full-functional connection to the Internet. His feeling is that the final solution of the issue was somehow related with the U.S.-China Combined Committee Meeting on the collaboration in Science and Technology between the two countries. The U.S. side may have wanted to enhance the friendly atmosphere for this meeting.

At that time my feeling was the obstacles were not in the technology. Because the technology team, Professor Qian and others, told me that they had full success in the test with Sprint. There were no technical obstacles. Everything is ready. Just the gate is still closed somehow. So I remember very clearly when I come up to Dr. Neal Lane, the NSF Director at that time, to ask for help. That was in the early April, when I was in Washington DC as a member of the China delegation attending the U.S.-China Combined Committee Meeting on the collaboration in Science and Technology between the two countries. Dr. Neal Lane immediately made a chance for me to talk with Stephen Wolff. Stephen just told me, "Don't worry. No problem. You will be connected to the Internet." I was not very sure about that. I asked him, is it that simple? He said yes it is simple. No contract, no signing, no document. The only document we had before that was the AUP (Accepted Use Policy). And then after a few days I got the news from my colleagues in China that the connection is done. It goes through smoothly. Everything is OK. Then I thought, "Oh, Stephen Wolff is really great!" This man had a magic stick. The magic stick pointed and the gate opened. Is it that simple? I guess it is.

Afterward, later in 1994, with the help of Prof. Zorn we moved the ".cn" server back to China from Karsruhe University, and in 1997 the CNNIC was approved by Chinese governmental authority. The Chinese people online started to grow fast. In May 2001 we established the Internet Society of China, (ISC), and, to our great honor, we successfully hosted the 2002 ISOC Conference in Shanghai.

[Editor's note: The following talk was presented in Potsdam on Sept 19, 2007. A video of the presentation can be viewed at: http://www.tele-task.de/page50_lecture3204.html.
The slides from this presentation can be seen at: http://www.hpi.uni-potsdam.de/fileadmin/hpi/-veranstaltungen/china/slides/070919_S3b_2_hauben_netizenmovement.pdf]

Netizens and the New News

The Emergence of Netizens and Netizen Journalism

by Ronda Hauben

Part I – Introduction

I am happy to be here today and to have this chance to contribute to this conference to celebrate the 20th anniversary of the first international email sent from China to Germany and the collaboration of researchers that made this early email communication possible.

I have been asked to speak about the Netizen movement and its impact. The title of my talk is "Netizens and the New News: The Emergence of Netizens and Netizen Journalism"

Part II – About Netizens

First I want to provide some background. In 1992-1993, a college student who had gotten access to the Net wondered what the impact of the Net would be.*

The student decided to do his research using the Net itself. He sent out several sets of questions and received many responses. Studying the responses, he realized something new was developing, something not expected. What was developing was a sense among many of the people who wrote to him that the Internet was making a difference in their lives and that the communication it made possible with others around the world was important.

The student discovered that there were users online who not only cared for how the Internet could help them with their purposes, but who wanted the Internet to continue to spread and thrive so that more and more people around the world would have access to it.

He had seen the word 'net.citizen' referred to online. Thinking about the social concern 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.

The student wrote a paper describing his research and the many responses he had received. The paper was titled, "The Net and Netizens: The Impact the Net has on People's Lives". This research was done in the early to mid 1990s just at the time that the Internet was spreading to countries and networks around the world.

The student posted his paper on several of the discussion forums known as Usenet newsgroups and on several Internet mailing lists on July 6, 1993. It was posted 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 found his article and helped to spread it to others. The term netizen quickly spread, not only in the online world, but soon it was appearing in newspapers and other publications offline. The student did other research and posted his articles online.

In January 1994, several of the articles about netizens and about the history of the Net were collected into a book to be available via file transfer protocol (ftp) to anyone online. The title of the book was "Netizens and the Wonderful World of the Net." Then in 1997 the book titled *Netizens: On the History and Impact of Usenet and the Internet* was published in a print edition in English and soon afterwards in a Japanese translation.

The concept and consciousness of oneself as a netizen has continued to spread around the world. I want to mention a few of the more striking early examples.

A netizen from Ireland put the online book into html to help it to spread more widely.

A review of the book was done by a Romanian researcher. He recognized that netizenship is a new development and acts as a catalyst for the development of ever more advanced information technology.

In 1995 the student was invited to speak at a conference about netizens and community networks in Beppu Bay on Kyushu Island in Japan. The conference was held by the Coara Community network.

A Japanese sociologist gathered a series of articles into a book in Japanese titled "The Age of Netizens". The book begins with a chapter on the birth of the netizen.

Also in the mid 1990s a Polish researcher was doing research connected with the European Union to try to determine what form of citizenship would be appropriate for the E.U. Looking for a model that might be helpful toward understanding how to develop a European-wide form of citizenship. He found the articles about netizens online. He recommended to E.U. officials that they would do well to consider the model of netizenship as a model for a broader than national but also, a participatory form of citizenship.

Among other notable events showing the impact of netizens around the world are:

A Netizen Association formed in Iceland to keep the price of the Net affordable.

A lexicographer in Israel who wrote a dictionary definition for a Hebrew dictionary making certain that she described a netizen as one who contributes to the Net.

A Congressman in the U.S. who introduced a bill into the U.S. House of Representatives called the Netizen Protection Act to penalize anyone sent spam on the Internet.

While the word 'netizen' like the word 'citizen' has come to have many meanings, the student who had discovered the emergence of netizens felt it was important to distinguish between the more general usage that the media has promoted, that anyone online is a netizen, and the usage the student had introduced, which reserved the title 'netizen' for a social identity.

In a talk he gave in Japan in 1995, the student explained:

> "Netizens are not just anyone who comes online. Netizens are especially not people who come online for individual gain or profit. They are not people who come to the Net thinking it is a service. Rather they 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." (Talk given at the Hypernetwork '95 Beppu Bay Conference in Japan)

The second usage of netizens is the usage I am referring to as well.

In his article "The Net and the Netizens" the student proposed that the Net "gives the power of the reporter to the Netizen." I want to look today at this particular aspect of netizen development by considering some interesting examples from South Korea, Germany, the U.S. and China.

III – South Korea and the Netizens Movement

In South Korea, over 80% of the population have access to high speed Internet. Along with the spread of high speed Internet access is the development of netizenship among the Korean population. During a recent trip to Seoul, I asked a number of different people that I met if they are netizens. They all responded yes, or "I hope so".

In South Korea, the overwhelming influence of the three (3) major newspapers on politics has led to a movement opposing this influence known as the "anti-Chosun movement." (Chosun Ilbo is the name of the largest, most influential newspaper in South Korea.)

Among the developments of this movement, was the creation of an alternative newspaper called *OhmyNews* by Oh Yeon Ho in February 2000. Mr. Oh had been a student activist and became a journalist for an alternative monthly magazine. He saw, however, that the alternative press monthly was not able to effectively challenge the influence over politics exerted by the mainstream conservative media in South Korea. With some funds he and a few other activist business people were able to raise, he began the online daily newspaper *OhmyNews*.

Mr. Oh felt that some of the power of the conservative mainstream media came from the fact that they were able to set the standards for how news was produced, distributed and consumed. He was intent on challenging that power and reshaping how and what standards were set for the news. The goal that *OhmyNews* set for itself was to challenge the great power of the mainstream news media over news production, distribution and consumption.

He had limited financial means when he started *OhmyNews* so he began with a staff of only four (4) reporters.

1) Selection and Concentration of Articles:

To make the most use of this small staff, he decided to focus on carefully chosen issues. Not only would there be carefully selected issues, but there would then be several articles on these issues so they could have the greatest possible impact.

2) Targeting Audience:

The staff of *OhmyNews* decided to aim their coverage of issues toward the young Internet generation, toward progressives and activists and toward other reporters.

3) Challenge how standards are set and what they are:

One of the innovations made by Mr. Oh was to welcome articles not only from the staff of the young newspaper, but also from what he called "citizen reporters" or "citizen journalists."

"Every citizen is a reporter," was a motto of the young newspaper, as they didn't regard journalists as some exotic species. To be a reporter was not some privilege to be reserved for the few. Rather those who had news to share had the basis to be journalists. Referring to citizen journalists as "news guerrillas", *OhmyNews* explains that:

The dictionary definition of guerrilla is "a member of a small non-regular armed forces who disrupt the rear positions of the enemy."

One of the reasons for calling citizen journalists "news guerrillas" *OhmyNews* explains, is that

it found that citizen journalists would "post news from perspectives uniquely their own, not those of the conservative establishment."

This viewpoint, the viewpoint challenging the conservative establishment was an important insight that *OhmyNews* had about the kinds of submissions it was interested in for its newspaper, submissions from those who were not part of their staff but whose writing became a significant contribution to *OhmyNews*.

Articles submitted by citizen journalists would be fact checked, edited, and if they were used in *OhmyNews*, a small fee would be paid for them.

Articles could include the views of their authors as long as the facts were accurate. In this way *OhmyNews* was changing both who were considered as journalists able to produce the news, and what form articles would take.

Basing itself mainly on the Internet to distribute the news, *OhmyNews* was also changing the form of news distribution.

(Once a week a print edition was produced from among the articles that appeared in the online edition during the week. There was a need to produce a print edition in order to be considered a newspaper under the South Korean newspaper law.)

The long term strategy of *OhmyNews* was to create a daily Internet based newspaper superior to the most powerful South Korean newspaper at the time (the digital version of Chosun Ilbo, the Digital Chosun)

In its short seven year existence there have been a number of instances when *OhmyNews* succeeded in having an important impact on politics in South Korea. A few such instances are:

1) Helping to build what became large candlelight demonstrations against the agreement governing the relations between the U.S. government and South Korea. This agreement is known as the Status of Forces Agreement. (The U.S. has approximately 30,000 troops in South Korea.)

2) Helping to build the campaign for the presidency of South Korea for a political outsider Roh Moo-hyun in Nov-Dec 2002

3) Helping to bring to public attention the death of a draftee from stomach cancer because of poor medical treatment in the military. Articles in OMN helped to expose the problem and put pressure on the South Korean government to change the conditions

4) Helping to create a climate favorable to the development of online publications

IV *Telepolis* – the Online Magazine

In Germany a different form of online journalism has developed. One influential example is *Telepolis*, an online magazine created in March 1996 to focus on Internet culture. The online magazine is part of the Heise publication network. *Telepolis* which celebrated its 10th anniversary in 2006, has a small staff and also accepts articles from freelancers for which it pays a modest fee. It publishes several new articles every day on its web site and also has an area where there is often lively online discussion about the articles which have appeared. The articles are mainly in German though some English articles are published as well.

Describing *Telepolis* in 1997, David Hudson writes:

> "Over eight hundred articles are up (online), many of them in English, and people are reading them. The number of pageviews is rumored to rival that of some sites put up by well-established magazines. So…*Telepolis* has actually done quite a service for some of the more out of the way ideas that might not otherwise have become a part of European digital culture." (*Rewired*, http://www.rewired.com/97/1010.html)

One example of what I consider *Telepolis*'s important achievements is the fact that the day after the Sept. 11, 2001 attacks on the World Trade Center, a series of articles began in *Telepolis* questioning how quickly the U.S. government claimed it knew the source of the attacks, despite the fact that no preparations had been made to prevent the attacks. A lively discussion ensued in response to the articles on *Telepolis*. Serious questions were raised comparing what happened on Sept. 11 and the ensuing attacks by the U.S. government on civil liberties using Sept. 11 as a pretext. Comparisons were considered and debated comparing Sept 11 and the response of the U.S. government with what happened in Germany with the Reistag fire and the rise of fascism in the 1930s. Describing the response he received to his articles in *Telepolis*, the journalist Mathias Broeckers writes:

> "Never before in my 20 years as a journalist and author of more than 500 newspaper and

radio pieces have I had a greater response than to the articles on the World Trade Center series although they were only published on the Internet. Although? I reckon it's rather because they were only to be found in the Internet magazine *Telepolis*, and soon after on thousands of Web sites and forums everywhere on the Internet, that they achieved this level of response and credibility." (*Conspiracies, Conspiracy Theories and the Secrets of 9/11*, Progress Press, June 2006)

Similarly before the U.S. invasion of Iraq, I wrote an article for *Telepolis* about the large demonstration held in New York City on Saturday, February 15, 2003. In the article I proposed that the demonstration would have been even larger but for a number of obstacles the U.S. government put in the path of those wanting to protest the U.S. invading Iraq. A significant discussion among the readers of *Telepolis* followed in which the issues raised in the article were carefully examined and other sources used to fact check the article and to compare the view I presented with that which appeared in the more mainstream press.

V- Blogs in the U.S.

There is no U.S. online publication equivalent to *OhmyNews* in South Korea or *Telepolis* in Germany. There are a number of blogs, which often challenge the reporting of the mainstream media in the U.S. or which respond, often critically, to U.S. government policy and actions.

One blog I have found particularly interesting is the blog "China Matters."

The author of the blog is anonymous, using the name "China Hand". He introduces his blog by explaining that U.S. policy on China is very important, yet there is relatively little information presented about China to the public in the U.S.

China Hand writes: "America's China policy evolves with relatively little public information, insight or debate. In the Internet age, that's not desirable or justifiable. So China Matters. The purpose of this website is to provide objective, authoritative information and to comment on matters concerning the People's Republic of China."

An important role the China Matters blog played recently was to help provide information about the U.S. Treasury Department's actions to freeze North Korean funds in a bank in Macau, China, the Banco Delta Asia (BDA) bank.

To fill in some background, in September 2005, an agreement was reached to serve as a foundation for negotiations among the six countries negotiating a peace agreement for the Korean Peninsula. Shortly afterwards, the U.S. government announced that it had taken an action under the U.S. Patriot Act to freeze $25 million of North Korean funds held in a bank in Macau, China. This action stalled any continuation of the negotiations until the money would be released and returned to North Korea via the banking system.

The China Matters blog posted documents from the owner of the bank in China demonstrating that no proof had been presented to justify the U.S. government's actions. The publication of these documents made it possible for of the publications to carry articles so that a spotlight was focused on the problem. The problem was then able to be resolved. The money was released to North Korea, paving the way for the resumption of the Six-Party Talks.

VI – Netizen journalism in China

China, like the U.S. doesn't appear to have an online newspaper or magazine like *OhmyNews* or like *Telepolis*. There are, however, a number of active online forums and blogs.

Perhaps one of the most well known recent activities of Chinese bloggers is known as "the Most Awesome Nail House" saga.

A nail house, according to an article in *OhmyNews International* is the name given by real estate developers to describe the building of an owner who opposes moving even when his property is slated for demolition.

This past February, a blogger posted a photograph of one such building on the Internet. The picture spread around the Internet. The building was owned by Yang Wu and his wife Wu Ping. It was the building where they had lived and had a small restaurant. The nail house was located on number 17 Hexing Road, Yangjiaping, Changqing,

Real estate developers planned to build a shopping center on that spot and had successfully acquired all the surrounding buildings. Yang Wu and his wife, however, were determined to resist until their demand for what they felt was fair compensation was met.

In September 2004, demolition of the surrounding buildings began and by February 2007 only Yang's building remained. The developers cut off the water and electricity even though this was illegal.

The story spread not only over the blogs but soon also in the Chinese media. At one point, however, the story was not being reported in the Chinese press. A blogger from Hunan, Zola Zhou wrote on his blog, "I realize this is a one-time chance and so from far far away I came to Changqing to conduct a thorough investigation in an attempt to understand a variety of viewpoints."

On his blog, Zola reports that he took a train and arrived two days later at the Changqing train station. On his way to the nail house, he stopped to have rice noodles, and asked the shop owner what he thought of the nail house saga. Along the way he spoke to other people he met. He reported on the variety of views of the people he met on his blog. Some of those he spoke with supported Yang Wu and Wu Ping. Others felt Yang Wu and Wu Ping were asking for a lot of money. (20 million RMB) and that the developer was justified in refusing to pay such an outlandish amount. Another person told Zola that Yang Wu was only asking for the ability to be relocated to a comparable place and that the developer was offering too little for the property.

After arriving in Changqing, Zola reports on his blog that he bought the newspapers and looked to see if there was any news that day about the Nail House saga. He reports he didn't find any coverage, though he was told there may have been some in the paper from the previous day.

One of the surprises for Zola in Changqing was to find that other people who were losing their homes and businesses had gathered around the Nail House hoping to find reporters to cover their struggles against developers.

One such person offered Zola some money to help with the young blogger's expenses. "I'd never come across a situation like this before," he writes, "and never thought to take money from people I'd help by writing about, so I firmly said I didn't want it, saying I only came to help him out of a sense of justice and that it might not necessarily prove successful." Zola explains that he wondered if accepting the money "would lead me to stray further and further from my emerging sense of justice." Eventually, he let the person buy him lunch and later, he accepted money to be able to stay in a hotel room for a few days to continue to cover the story on his blog. Also Zola eventually asked Yang Wu's wife Wu Ping what her demand of the developer is. Her answer, he writes, is "I don't want money. What I want is a place of the same size anywhere in this area."

Zola had heard a rumor that Wu Ping could hold out for her demands to be met by the developers because her father was a delegate for the National People's Congress.

Zola asked Wu Ping if her father is a delegate for the National People's Congress. Wu Ping responded, "No" her father wasn't a delegate. She had had some background, however, reading law books and had had the experience of going through a law suit which she won. But Wu Ping did not want a law suit against the developer because she said that "A lawsuit goes on for three to five years. I may win the law suit but I end up losing money."

In April, the Awesome Nail House was demolished.

In preparing my talk for today, I sent Zola email asking a few questions. I asked him what the outcome was of the Nail House struggle. He said that Yang Wu and Wu Ping were given another house and 900,000 RMB for what they lost during the time they couldn't operate their restaurant.

I also asked him, "Do you consider yourself a netizen? Can you say why?" He answered, "Yes, I do. Because I read news from Internet, Make friends from Internet, communicate with friends by Internet, write a blog at the Internet."

Another example of netizen activity on the Net in China is the story that Xin Yahua posted about young people in the provinces of Shanxi and Henan being kidnapped and then subjected to slave labor working conditions. Families reported the disappearance of young people in the vicinity of the Zhengzhou Railway Station, bus stations, or nearby roads. A discovery was made that a number of young people had been abducted and then sold for 500 yuan (about $62) to be used as slave labor for illegal brick kilns operating in Shanxi.

On the evening of June 5, 2007, a post appeared on the online forum at "Dahe Net", which attracted much attention and many page views.

The post appeared as an open letter from 400 fathers of abducted children. The letter described how when the fathers went to the local government to ask for help they were turned away, with the excuse given that the kilns where the slave labor conditions were being practiced, were in a different police jurisdiction from where the abductions had taken place. "Henan and Shanxi police pass the buck back and forth," the letter explained. "Who can rescue them," the letter asked. "With the governments of Henan and Shanxi passing the buck to each other, whom should we ask for help? This is extremely urgent and concerns the life and death of our children. Who can help us?"

Xin Yanhua, a 32 year old woman who was the aunt of one of the abducted young people, wrote the letter. She originally posted it under an anonymous name ("Central Plain Old Pi"). Her nephew had been abducted, but then rescued and returned home by some of the fathers looking for their own children. She was grateful to those who found her nephew and wanted to find a way to express her gratitude. Originally she tried to offer the fathers who found her nephew money, but they said "This is not about the money. This is about the wretched children." She tried to get the local newspapers and television to cover the story. The 400 word article that appeared in the local newspaper didn't lead to any helpful action. The TV coverage wasn't followed up with any further stories. Nothing resulted from it. Xin Yanhua finally drafted the letter from the "400 Fathers of the Missing Children" and posted it in an Internet forum.

The forum moderator placed the post in a prominent position on the Dahe Net forum and posted it with some of the photographs from the Henan TV Metro Channel coverage. It was subsequently reposted on the Tianya forum. As of June 18, the Dahe post generated more than 300,000 page views and the reposting of it at the Tianya forum had generated more than 580,000 page views and many many comments. Many of the comments expressed dismay that such conditions existed and expressed empathy for the victims and their families.

A few weeks later Xin Yanhua posted a second letter titled, "Failing to Find their Children, 400 Parents petition again."

The media converged from around the country to cover the story. As a result of the posts and discussion on the Internet, state officials issued directives and the Shanxi and Henan provincial governments initiated an unprecedented campaign against the illegal brick kilns.

When Xin Yanhua was asked why she had done the posts, she emphasized that she didn't want fame or credit. The Internet had become the only option to obtain aid for the situation. She had wanted to express her gratitude to the parents who had rescued her nephew even though they hadn't been able to find their own missing children. Xin wanted to be able obtain justice.

"This case is yet another in a growing list of cases of citizen activism on the Chinese Internet and another sign that the government is listening to the online chatter," one post explained.

I hope that these examples help to show that, "Focusing too closely on Internet censorship overlooks the expanded freedoms of expression made possible in China by the Internet," as one Chinese computer researcher has commented.

Conclusion

The few examples I have had the time to present are just the tip of an ice berg, to indicate that already the Net and Netizens are having an impact on our society. The impact on the role the press and media play may have different expressions in different countries, as my examples demonstrate with respect to South Korea, Germany, the U.S. and China. But in all these instances the Net and Netizens are having an impact not only on the role of the media on society, but on government activity and on the very nature of the press itself.

I want to draw your attention to a cartoon (http://www.ais.org/~jrh/acn/cartoon.ppt). In the cartoon there are several scientists (palentologists) who have come to look for something they have been told is very large. They are discussing whether they should turn back as they don't see anything. But if you look carefully at the cartoon, you can see that they are standing in the midst of a huge footprint. The problem is that it is so large that they can't see it.

I want to propose that like the cartoon the Internet and Netizens are having an impact on our society, which can be difficult to see but yet may be very large. I want to propose that we don't make the mistake of turning back because we can't see it.

*The student referred to is Michael Hauben. He is co-author of the book *Netizens: On the History and Impact of Usenet and the Internet*. (http://www.columbia.edu/~hauben/netbook/)

Conference Presentation Videos Online

The "Across the Great Wall" twentieth anniversary celebration was sponsored and hosted by the Hasso Plattner Institute. The program and biographical information about the participants can be seen at: http://www.hpi.uni-potsdam.de/fileadmin/hpi/veranstaltungen/china/slides/conference_binder.pdf.
The Institute has archived online video files of the presentations. Some of those presentations can be viewed at:
"Introduction to the Forum" (in German and Chinese, no English translation)
http://www.tele-task.de/page50_lecture3201.html

"Connecting China to the International Computer Networks" Werner Zorn
http://www.tele-task.de/page50_lecture3202.html

"Growth of the Internet in China since 1987" Hu Qiheng
http://www.tele-task.de/page50_lecture3203.html

"Panel discussion: The Impact of the first e-mail" chaired by Dennis Jennings
http://www.tele-task.de/page50_lecture3204.html

"Brief Introduction to CNNIC and IDN in China" Zhang Jianchuan
http://www.tele-task.de/page50_lecture3233.html

"The Netizen Movement and Its Impact" Ronda Hauben
http://www.tele-task.de/page50_lecture3234.html

"Building the global Metaverse" Ailin Guntram Graef
http://www.tele-task.de/page50_lecture3235.html

"W3C und W3C World Offices" Klaus Birkenbihl
http://www.tele-task.de/page50_lecture3236.html

"Supported Vocational Education Instructors Training for China at Tongji University Shanghai" Thorsten Giertz
http://www.tele-task.de/page50_lecture3237.html

"Internet and the freedom of opinion" Wolfgang Kleinwächter
http://www.tele-task.de/page50_lecture3238.html

Most of these presentations are referred to already in this issue. The presentation by Zhang Jianchuan outlines some of the history and current state of the Internet in China and discusses the effort to have Chinese character internet addressing available with its advantage for Chinese speaking people. The slides for his presentation are at:
http://www.hpi.uni-potsdam.de/fileadmin/hpi/veranstaltungen/china/slides/070919_S3b_1_ZHANG_CNNIC.pdf.

The presentation by Wolfgang Kleinwächter discusses the questions of freedom of opinion and of censorship. As it applies to China, he stressed that the advances of free expression are the main aspect not as is often erroneously cited, censorship. The slides for his presentation are at:
http://www.hpi.uni-potsdam.de/fileadmin/hpi/veranstaltungen/china/slides/070919_S3b_6_Kleinwaechter_Internet_Freedom_of_Opinion.pdf

[Editor's note: The following article attempts to put the colaborration which led to the first email massage from China to the world over the CSNet in the context of internetional computer and networking cooperation.
http://www.ais.org/~jrh/acn/context.ppt]

Some Context for the Spread of CSNET to the Peoples Republic of China

by Jay Hauben

This article puts the spread of CSNET email to the Peoples Republic of China into a particular historical context.

A clue to that context is where the first email message went when it left Beijing. The Cc: line on the September 20, 1987 email message tells us that

the message not only went from Beijing to Karlsruhe, from the Peoples Republic of China to the Federal Republic of Germany. It went also to lhl, Larry Landweber at the University of Wisconsin and to Dave Farber at the University of Deleware both in the U.S. using the CSNET and to Dennis Jennings in Dublin Ireland using CSNET and BITNET. And it went to the CSNET Coordination and Information Center, CIC.

The message on this China-Germany link went across a supposed ideological and many geographic and technical borders. What Professors Wang Yunfeng and Werner Zorn and their teams had done was spread the international computer science email network CSNET to the People's Republic of China. They had taken a step toward an internet connection between the people of China and the online people of the rest of the world.

As an historian and a journalist I want to go back in time and trace a tradition of sharing and crossing borders that is a characteristic of computer development and computer science. I will start with the Hungarian-born scientist and mathematician John von Neumann just after the Second World War.

Von Neumann had set a very solid scientific foundation for computer development in his work for the U.S. government during the war. He foresaw that it would not be possible to know how computers would be used and so the most general purpose computer should be built.

He wrote a report presenting detailed arguments for the axiomatic features that have characterized computers ever since. But when the war ended there began to be a battle over who would get the patent for the basic ideas that were embodied in the ENIAC, one of the first successful electronic digital computers. Von Neumann saw a potential conflict between scientific and commercial development of computers.

Von Neumann argued that the foundation of computing should be scientific and that a prototype computer be built at the Institute for Advanced Study at Princeton, NJ to insure that a general purpose computer be build by scientists. He wrote: "It is …, very important to be able to plan such a machine without any inhibitions and to run it quite freely and governed by scientific considerations." The computer became known as the Institute for Advanced Studies or IAS computer.

Von Neumann also set the pattern in the very beginning that the fundamental principles of computing should not be patented but should be put in the public domain. He wrote:
"…[W]e are hardly interested in exclusive patents but rather in seeing that anything that we contributed to the subject, directly or indirectly, remains accessible to the general public…[O]ur main interest is to see that the government and the scientific public have full rights to the free use of any information connected with this subject."

He was here placing his contributions to computer development into the long tradition of the public nature of science, the norm of sharing scientific results. That norm had been interrupted by the war.

Von Neumann gathered a team of scientists and engineers at the Institute for Advanced Studies to design and construct the IAS computer. He and his team documented their theoretical reasoning and logical and design features in a series of reports. They submitted the reports to the U.S. Patent Office and the U.S. Library of Congress with affidavits requesting that the material be put in the public domain. And, they sent out these reports – 175 copies of them by land and sea mail – to scientist and engineer colleagues in the U.S. and around the world. The reports included full details how the computer was to be constructed and how to code the solution to problems.

Aided by the IAS reports, computers were designed and constructed at many institutions in the U.S., and in Russia, Sweden, Germany, Israel, Denmark, and Australia. Also, scientific and technical journals began to contain articles describing computer developments in many of these countries. Visits were exchanged so the researchers could learn from each other's projects. This open collaborative process in the late 1940s laid a solid foundation for computer development. It was upon that scientific foundation that commercial interests were able to begin their computer projects starting by the early 1950s.

The end of the war had unleashed a general interest in the scientific and engineering communities for computer development. Many researchers had to be patient while their counties recovered from the devastation of the war before they could fully participate. Still computer development was international from its early days.

Scientific and technical computer advances continued in the 1950s. A new field of study and practice was emerging, Information Processing, what is called today Informatics or Computer Science.

Starting in 1951, in the United States national biennial Joint Computer Conferences (JCC) were held for American and Canadian researchers from the three professional associations active in computer development.

What may have been the first major international electronic digital computer conferences was organized in 1955 by Alwin Walther, a German mathematician. It was in Dramstadt Germany. There were 560 attendees. One of the sixty speakers at the meeting was Herman Goldstine, von Neumann's partner in the IAS Computer Project and one of the signatories of the affidavit putting all his work into the public domain. The abstracts were all published in both German and English. This conference and others held during the time of the division of Germany were partly the result of efforts by German scientists on both sides of the divide to keep in touch with each other's work.

In China also computer development was on the agenda. In 1956, the Twelve-Year Plan for the Development of Sciences and Technology included computer technology as one of the 57 priority fields.

Describing the mid 1950s, Isaac Auerbach, an American engineer active organizing the Joint conferences, reports that "In those days we were constantly talking about the state of the art of computers…I suggested then that an international meeting at which computer scientists and engineers from many nations of the world might exchange information about the state of the computer art would be interesting and potentially valuable. I expressed the hope that we could benefit from knowledge of what was happening in other parts of the world…. The idea was strongly endorsed…." Auerbach projected such a conference would be a "major contribution to a more stable world." This line of thought helped suggest approaching UNESCO, the United Nations Educational, Scientific and Cultural Organization to sponsor such a conference.

UNESCO was receiving proposals from other countries as well. The result was the first World Computer Conference, held in 1959 in Paris. Nearly 1800 participants from 38 countries and 13 international organizations attended. Auerbach wrote that "by far, the most important success of the conference was the co-mingling of people from all parts of the world, their making new acquaintances, and their willingness to share their knowledge with one another." Computers and computing knowledge was treated at this conference as an international public good. The level of development reported from around the world was uneven but sharing was in all directions.

During the UNESCO conference, many attendees expressed an interest in the holding of such meetings regularly. A charter was proposed and by Jan 1960 the International Federation for Information Processing (IFIP) was founded. IFIP's mission was to be an "apolitical world organization to encourage and assist in the development, exploitation and application of Information Technology for the benefit of all people." Eventually, IFIP subgroups sponsored annually hundreds of international conferences on the science, education, impact of computers and information processing.

The success of the IFIP in fulfilling its mission is attested to by the fact that all during the Cold War, IFIP conferences helped researchers from East and West to meet together as equals to report about their computing research and eventually about their computer networking research and activities. [As an aside, when the IFIP held its Sixteenth World Computer Conference in the year 2000 it was in Beijing.]

The sharing among researchers by letter and at conferences was also being built directly into the computer technology itself. The 1960s, were ushered in by the beginning of development of the time-sharing mode of computer operations. Before time-sharing, computers were used mostly in batch processing mode where users left jobs at the computer center and later received back the results. Computer time-sharing technology made possible the simultaneous use of a single computer by many users. In this way more people could be using computers and each user could interact with the computer directly.

The human-computer interactivity made possible by time-sharing suggested to JCR Licklider, an American psychologist and visionary, the possibility of human-computer thinking centers. A com-

puter and the people using it forming a collaborative work team. He then envisioned the interconnection of these centers into what he called in the early 1960s the "intergalactic network", all people at terminals everywhere connected via a computer communications system. Licklider also foresaw that all human knowledge would be digitized and somehow made available via computer networks for all possible human uses. This was Licklider's vision for an internet.

In 1962, Licklider was offered the opportunity to start the Information Processing Techniques Office a civilian office within the U.S. Defense Department. As its director he gave leadership insuring the development and spread of time-sharing interactive computing which gave raise to a community of time-sharing researchers across the U.S.

Computer time-sharing on separate computers led to the idea of connecting such computers and even how to connect them.

Donald Davies, a British computer scientist, visited the time-sharing research sites that Licklider supported in the U.S. Later he invited time-sharing researchers to give a workshop at his institution. Davies reports that after the workshop he realized that the principle of sharing could be applied to data communication. He conceived of a new technology which he called packet switching. The communication lines could be shared by many users if the messages were broken up into packets and the packets interspersed. Davies' new technology treated each message and each packet equally. By sharing the communication system in this way a major efficiency was achieved over telephone technology.

By 1968 Licklider foresaw that packet switching networking among geographically separated people would lead to many communities based on common interest rather than restricted to common location. Licklider expected that network technology would facilitate sharing across borders.

Licklider and his co-author Robert Taylor also realized that there would be political and social questions to be solved. They raised the question of access, of 'haves' and 'have nots'. They wrote:

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

Licklider and Taylor were predicting that the technology would have built into it the capacity to connect everyone but spreading the connectivity would encounter many obstacles.

Von Neumann's putting his computer code in the public domain was repeated. In 1969, mathematicians at the U.S. telephone company AT&T Bell Labs started to build a computer time-sharing operating system for their own use. They called it UNIX. It was simple and powerful. AT&T was forbidden to sell it because computer software was not part of its core business. The developers made UNIX available on tapes for the cost of the tapes. They also made the entire software code available as well. Being inexpensive and powerful and open for change and improvement by its users, UNIX spread around the world. UNIX user organizations united these people into self-help communities.

The computer time-sharing scientists that Licklider supported also began in 1969 an experiment to connect their time-sharing centers across the U.S. Their project resulted in the first large scale network of dissimilar computers. Its success was based on packet switching technology. That network became known as the ARPANET, named after the parent agency that sponsored the project, the Advanced Research Project Agency (ARPA). The ARPANET was a scientific experiment among academic researchers not as is often stated a military project.

The goal of the ARPANET project was "to facilitate resource sharing". The biggest surprise was that the ARPANET was used mostly for the exchange of text messages among the researchers about their common work or unrelated to work. Such message exchanges occurred in every time sharing community. The ARPANET only increased the range and number of users who could be reached. Thus was born email, an effective and convenient added means of human communication. The idea of swapping messages is simple. Communication technologies that make an email system possible is the challenge.

The ARPANET started with four nodes in early 1970 and grew monthly. Early technical work on it was reported at the joint conferences in the U.S. and in the open technical literature. Simi-

lar packet switching experiments took place elsewhere especially France and the U.K. Visits were exchanged and each other's literature was eagerly read.

The thought of interconnecting these networks seemed a natural next step. Again the technology itself invited sharing and connecting, all of which requires collaboration.

The spark toward what we know today as the internet emerged seriously in October 1972 at the first International Computer Communications Conference in Washington DC. Not well known is the fact that the internet was international from its very beginning. At this conference researchers from projects around the world discussed the need to begin work establishing agreed upon protocols. The International Working Group (INWG) was created which helped foster the exchange of ideas and lessons. Consistent with IFIP purposes this group became IFIP Working Group 6.1.

The problem to be solved was how to provide computer communication among technically different computer networks in countries with different political systems and laws. From the very beginning the solution had to be sought via an international collaboration. The collaboration that made possible the TCP/IP foundation of the internet was by U.S., Norwegian and U.K. researchers.

Throughout the 1970s the ARPANET grew as did computing and computer centers in many countries. Schemes were proposed to connect national computer centers across geographic boundaries. In Europe, a European Informatics Network was proposed for Western Europe. A similar networked called IIASANET was proposed for Eastern Europe. The hope was to connect the two computer networks with Vienna as the East-West connection point. IIASANET got its name from the International Institute for Advanced System Analysis which was an East-West institute for joint scientific work. When the researchers met for joint work in the IIASA Computer Project or at IFIP conferences, they were pointed to or had already read the journal articles describing the details of the ARPANET. The literature had crossed the Iron Curtain and now the researchers tried to get networks to cross too. At this they failed. The reason seemed both commercial and political. The networks depended on telephone lines and the telephone companies were reluctant to welcome new technology. Also, with the coming of Ronald Reagan to the U.S. Presidency, hard line politics derailed East-West cooperative projects.

Efforts in the 1970s to exchange visits among computer scientists also included China. In 1972 six substantial U.S. computer scientists on their own initiative were able to arrange a three week visit to tour computer facilities and discuss computer science in Shanghai and Beijing. They reported that the Chinese computer scientists they met were experienced and well read in western technical literature. The discussions and sharing were at a high level. They felt their trip was a useful beginning to reestablish "channels of communication between Chinese and American computer scientists." A few months after their visit, a tour of seven Chinese scientists of the U.S. included Li Fu-sheng a computer scientist.

In the U.S., the advantage of being on the ARPANET especially email and file transfer attracted the attention of computer scientists and their graduate students. But most universities could not afford the estimated $100,000 annual cost nor had the influence to get connected. A common feeling was that those not on the ARPANET missed out on the collaboration it made possible.

To remedy the situation two graduate students Tom Truscott and Jim Ellis developed a way to use the copy function built into the Unix operating system to pass messages on from computer to computer over telephone lines. The messages could be commented on and the comments would then be passed on with the messages. In that way the messages became a discussion. They called the system USENET short for UNIX Users Network. Since UNIX was wide spread on computers in many countries, USENET spread around the world. Based at first on telephone connections between computers the costs could be substantial. Some help with phone costs was given by AT&T the regulated U.S. phone company. Computer tapes containing a set of messages were sometimes mailed or carried between say the U.S. and Europe or Australia as a less expensive means of sharing the discussions.

At the same time, Larry Landweber, a computer scientist in the U.S., gathered other computer scientists who lacked ARPANET connectivity. The ARPANET connected universities were pulling ahead of the others in terms of research collabora-

tion and contribution. Landweber and his colleagues made a proposal to the U.S. National Science Foundation (NSF) for funding for a research computer network for the entire computer science community.

At first the NSF turned the proposal down. There were favorable reviews, but some reviewers thought the project would have too many problems for the proposers to solve and that they lacked sufficient networking experience. Although disappointed, Landweber and his colleagues continued to work to put together an acceptable proposal. They received help from many researchers in the computer science community By 1981 they had support for their Computer Science Research Network (CSNET) project which would allow for connection with the ARPANET, telephone dialup connections and what was called public data transmission over telephone lines.

Landweber's group got funding and management help from the NSF. Piece by piece they solved the problems. A gateway was established between CSNET and the ARPANET and CSNET spread throughout the U.S.

But it didn't stop there. Landweber and his coworkers supported researchers in Israel soon followed by Korea, Australia, Canada, France, Germany, and Japan to join at least the CSNET email system. Also, CSNET was a critical driver in helping the NSF see the importance of funding an NSFNET and thus contributed to the transition to the modern Internet.

In 1984, computer scientists at Karlsruhe University notably Michael Rotert and Werner Zorn succeeded in setting up a node for Germany to be on the CSNET system. These scientists wanted to spread this connectivity. It was via that node that they conceived of the possibility that computer scientists in China could have email connectivity with the rest of the international computer science community. The rest is the history we are celebrating!

To sum up, there is a solid tradition associated with computers and computer networks. The technology and the people involved tend to support sharing and spreading of the advantages computing and networks bring. Part of that tradition is:

Von Neumann insisting that the foundation of computing be scientific and in the public domain.

Alwin Walther and Isaac Auerbach insuring that computer science was shared at international conferences.

JCR Licklider envisioning an intergalactic network.

Donald Davies conceiving of packet switching communication line sharing technology.

Louis Pouzin and Bob Kahn initiating internetworking projects.

Tom Truscott initiating Usenet.

Larry Landweber persisting to get all computer scientists onto at least email.

And Werner Zorn and Yufeng Wang insuring that Chinese computer scientists were included.

I feel we today are celebrating and supporting that long tradition.

[Editor's note: The following interview was conducted on Sept 23, 2007 in Berlin for the book, *Wem gehört das Internet?* Gabrielle Hoofacker is the founder of the Munich Media-Store and Journalists-Academy.]

Netizen Journalism: An Interview, Berlin Sept 23, 2007

Dr. Gabriele Hooffacker: Would you say that netizen journalism is the same as grassroots journalism?

Ronda Hauben: They are not quite the same. Netizen journalism includes grassroots journalism, but the significance I understand is that a netizen has a social perspective and does something from that perspective. Some of the origin of the term netizen was when Michael Hauben, then a college, student did some research in 1992-1993. He sent out a number of questions on Usenet which was at the time and still is an online forum for discussion. Usenet was very active in the early 90s. He also sent his questions out on internet mailing lists.

In the responses to his questions people said that they were interested in the internet for the different things they were trying to do but they also wanted to figure out how to spread the internet, to help it to grow and thrive and to help everybody have access. What Michael found was that there was a social purpose that people explained to him.

People had developed this social sense from the fact that they could participate online and find some very interesting valuable possibilities online. Many of the people that responded to his questions shared with him that they wanted to contribute to the internet so that it would grow and thrive.

In my opinion this set of characteristics is broader than grassroots journalism. Grassroots journalism I would interpret as people from the grassroots having the ability to post. But where there is also a social desire and purpose, that is what I would define as netizen journalism.

Dr. Gabriele Hooffacker: You also said political participation?

Ronda Hauben: Yes a political and a social purpose. By social I mean that people support something happening for other people, that the net be shared and be available to a broader set of people. This includes a political focus as well.

Dr. Gabriele Hooffacker: I just remember one of my first keynote speeches. I had to speak about empowering the information poor in 1994. It was a meeting of pedagogic teachers and I told them that they should try to make it possible for many people of all classes to have access to the internet. That I think is some of the sense of being a netizen.

Ronda Hauben: That is being a netizen.

Dr. Gabriele Hooffacker: I'm afraid many people think participation only means economical and not political and that especially people in Eastern Europe mainly wanted to take part economically.

Ronda Hauben: In the U.S. for example there has been a lot of pressure supported by the U.S. government for seeing the internet as a way to enrich yourself. But that is not what grew up with the internet community. The pressure for the internet to be for economic purposes was in opposition to the netizen developments in the U.S.

Jay Hauben: At one point it became clear that there was beginning to be the internet for economic purposes in contradiction to the original internet. That is when Ronda and Michael received a lot of help toward having appear a print edition of their book, *Netizens**. People said, we must defend the internet from this new pressure, which is coming as an economic pressure. That was a great impetus and support for publishing the book.

Dr. Gabriele Hooffacker: We just talked about the Chinese bloggers and you told me that they call themselves netizens.

Ronda Hauben: I asked a Chinese blogger, Zola Zhou, who I had written to if he thought of himself as a netizen. He said yes he did. Also, I have seen articles about the internet in China that actually say that the netizens are a small set of the Chinese online population but are those who have political purpose and activities. That is inline with research that Michael originally did in the 1990s with regard to the internet and which helped his coming to understand that such people online around the world were netizens.

Dr. Gabriele Hooffacker: You told me that there is a great blogger community without censorship and also political?

Ronda Hauben: No, there is censorship in China. But there is a big blogger community and something that I found in one of the articles that I read I thought was very hopeful. It quoted a Chinese internet user who said that focusing too closely on internet censorship overlooks the expanded freedoms of expression made possible in China by the internet. I thought that seemed correct. All I ever hear from the U.S. press is that in China the internet is censored. Such framing of the internet in China leads away from trying to look and understand what is happening in China with the internet. It turns out that there is something very significant developing and that has already developed, which involves a lot of people who are being very active trying to discuss the problems of China and trying to see if they can be part of helping to solve those problems. That is the opposite of the sense you get from the news media that talks about censorship all the time.

Jay Hauben: The chairwoman of the Internet Society of China (ISC) Madame Hu Qiheng spoke to me about this. She said that there are some very high Chinese government officials who have blogs

and they invite anybody and everybody to post. They answer as many posts as they can and they are learning the importance of blogging. She feels that they will be supportive to the changes that are needed to make the internet even more extensive and more well spread in China. She was optimistic that at least some in the Chinese government were seeing the importance of the blogging activity and were learning how to be supportive of it in some way. She wanted that to be known to the world.

Dr. Gabriele Hooffacker: I'm not sure whether I understand. Do they hope if the people blog they will learn to use the internet?

Jay Hauben: No, she said the government officials themselves had their own blogs and receive from the population criticisms and complaints and other things and they try to answer some. Those officials who have entered into this back and forth exchange she feels will learn from it and be supportive in the expanding support for blogging in China.

Dr. Gabriele Hooffacker: There are some examples that netizens can sometimes get control over the government. Could you give us one example?

Ronda Hauben: A question that I have is whether netizens can have some impact on what government does. Traditionally people like James Mill, writing in England in the 1800s argued that if a people do not have some oversight over government then government can only be corrupt. That is why a society needs processes and ways that people can discuss what government is doing and watch government. I like to use the word 'watch dogging' government. A piece of my research is to see if there are ways that by having the internet and the ability to participate in the discussion of issues netizens can have an impact on what government is doing. I have found situations where there is an impact on government.

One example I give is a blog that is called 'China Matters'. Also there have been articles in *OhmyNews International*, which is the newspaper for which I write. It is the English edition of the *Korean OhmyNews* an online newspaper started in 2000.

The blog China Matters was able to post some original documents from a case involving 'The Six-Party Talks Concerning the Korean Peninsula'. The six parties are North Korea, South Korea, the U.S., Russia, China and Japan. There was a breakthrough in the Six-Party Talks in September of 2005 leading to a signed agreement toward denuclearizing the Korean peninsula.

Immediately after the breakthrough, the U.S. Treasury Department announced that it was freezing the assets of a bank called Banco Delta Asia in Macau, China. Macau is a former Portuguese colony now a part of China as a special administrative region. Banks in Macau are under the Chinese banking authority and supervision. The U.S. government was determining what would happen with this bank in China. The Banco Delta China had accounts containing $25 million of North Korean funds. In response to the U.S. causing these funds to be frozen, North Korea left the Six-Party Talks saying it would have nothing to do with the talks until this matter got resolved.

In late January and the beginning of February 2007 there were negotiations between a U.S. government official and a North Korean official in Berlin. An agreement was reached that there would be an activity to work out the Banco Delta Asia problem so that the negotiations could resume in the Six-Party Talks.

But often with negotiations with the U.S. whenever there is an effort to try to straighten something out, the implementation is not done in a way that is appropriate. In this case what was offered was that North Korea could send someone to Macau to get the funds but it could not use the international banking system to transfer the funds which is the normal procedure.

U.S. Treasury Department officials went to China for negotiations allegedly to end the financial problems the U.S. had caused for North Korea. Officials from the different countries were waiting to have this settled so the negotiations could go on. Instead the U.S. Treasury Department officials failed to allow the international banking system to be used to be able to get the funds back to North Korea.

On the China Matters blog, the blogger posted the response of the Banco Delta Asia bank owner to these activities. If you read the owner's response you would realize that the bank owner was never

given any proof of any illegal activity that had gone on with regard to the funds in his bank, so there was no justification presented for having frozen the funds of his bank. The U.S. Treasury Department under the U.S. Patriot Act was able to be the accuser and then the judge and jury, to make the judgement and then have banks around the world go along.

Jay Hauben: By posting these documents on his blog, the China Matters blogger made it possible for journalists to write about this aspect of the case. In one of his blog posts he also put links to U.S. government hearing documents that helped to expose the rationale and the intention of the Treasury Department.

Ronda Hauben: Based on what I had learned from these blogs and then subsequent research that I had been able to do using the internet to verify what the blogger said, I wrote articles that appeared on *OhmyNews International*. I was subsequently contacted by somebody from the Korean section of the *Voice of America*, the official U.S. State Department world wide broadcasting service. She asked me about the articles I had written. Essentially the *Voice of America* reporter said that if this situation went on and the funds were not returned, the *Voice of America* was going to ask questions of the people I had identified who had come up with this policy. It would ask them to explain what they had done and to respond to the issues raised by my articles.

Just at this time, however, a means was found to get the funds back to North Korea via the international banking system. All the other prior times, this had failed.

It was very interesting that this was all happening at the same time. It provides an example of how a netizen media of blogs and online newspapers can take up issues like this one, get under the surface to the actual story and even have an influence on government activity.

The China Matters blog is very interesting because it says that there is U.S. policy about China being made without the knowledge of the American people. Therefore the American people do not understand what is going on or what the issues are. They are not given a chance to discuss and consider the policy. Somehow these issues have to be opened up, they have to be more public so that there will be a good policy with regard to what happens between the U.S. and China.

Dr. Gabriele Hooffacker: So the way was from the netizens and the bloggers directly to the government and not via mainstream media?

Ronda Hauben: In this situation there was one mainstream press that was different from all the rest. It was the McClatchy newspapers. McClatchy actually had an article about the China Matters blog. That was helpful for people to know about the blog. Here was collaboration between the blogger and the mainstream media but it was not that the rest of the mainstream media picked up any of that or discussed it. Most of the English speaking mainstream media just said that North Korea is being very difficult and that it should be allowing the Six-Party Talks to go on instead of making this trouble. McClatchy articles and my articles on *OhmyNews* tried to understand why North Korea was insisting that this money be returned using the international banking system. In this situation there was no need to influence what the rest of the mainstream media said or did. Voice of America Korea and the U.S. State Department responded to my articles in *OhmyNews* directly.

Jay Hauben: In a presentation at a recent symposium, Ronda spoke of a situation in China of child abduction and labor abuse with little response by the local government. The situation had been casually covered by local media butt was not solved. Only later when the story appeared prominently in online discussion sites did it spread. Then it was discussed by a large cross-section of the population. Finally the government started to act. In this case, the government had not been influenced by coverage by the local mainstream media but was pushed by the coverage of the netizen media.

Dr. Gabriele Hooffacker: Ronda, you are a featured writer for *OhmyNews*. I do not know whether there is a German edition?

Ronda Hauben: No, there is none at this point. *OhmyNews* has a Korean, a Japanese and an English language international edition. There are German writers who write in English for Ohmy-

News International. There is however a German online magazine which I am honored to write for in English, *Telepolis*, which I would call an example of netizens journalism.

Dr. Gabriele Hooffacker: Why do you think that *OhmyNews* is a good thing?

Ronda Hauben: The Korean edition of *OhmyNews* pioneered a concept which is very interesting. The founder of *OhmyNews*, Mr. Oh Yeon-Ho, had worked for an alternative monthly magazine, Mal, for almost 10 years. He saw that the mainstream media which is basically conservative would cover a story and it would be treated as news. On the other hand, he had uncovered for Mal a very important story about a cover-up of a massacre during the Korean War. His story, however, got very little coverage in the mainstream media and his coverage had no effect. About three years later, an American reporter covered the same story and got a Pulitzer Prize. Then the Korean mainstream media picked up the story and gave great coverage to it.

Mr Oh realized that it was not the importance of an issue that determined if it would be news, it was rather the importance given to the news organization that determined that. He decided that Korea needed to have a newspaper that could really challenge the conservative dominance of the news. So he set out with a small amount of money and a very small staff to try to influence how the press frames stories, how it determines what should be the stories that get covered. He also decided to welcome people to write as citizen reporters, to support the kinds of stories that were not being told in the other newspapers. He ended up welcoming in and opening up the newspaper so that a broader set of the Korean population could contribute articles to it and could help set what the issues were covered.

One example is the story of a soldier who had been drafted into the South Korean army. He developed stomach cancer. The medical doctors for the army misdiagnosed his illness as ulcers and hid the evidence that it could be cancer. He did not find out until the cancer was too far advanced for successful treatment. He died shortly after his term in the army was over. People who knew the soldier wrote the story and contributed it to *OhmyNews*. The *OhmyNews* staff reporters wrote follow up articles. There were a number of articles, which led to really looking into what the situation was.

Jay Hauben: There were 28 articles in 10 days. The government first said that the incident was not significant and that it happened all the time. But as more and more articles were written and more and more people were commenting and more and more people were writing letters and more and more people were blaming the government, the government changed its tune and acknowledged that there was something seriously wrong here. The government eventually said it would put 10 billion won over a five year period to have a better medical system in the armed services. That was the result of this 10 days of constant articles. Everybody knew someone in the army that might get sick and they did not want that to happen. Every mother was upset. It was a major national phenomenon from these 28 stories in 10 days.

Ronda Hauben: That is the kind of thing that *OhmyNews* has done in the Korean edition. The English language edition does not have regular staff reporters the way the Korean edition does so is weaker in what it can do.

A lot of the analysis of *OhmyNews* in the journalism literature is only looking at the fact *OhmyNews* uses people as reporters who are not part of a regular staff. This literature does not look at the whole context of what *OhmyNews* has attempted and developed.

But even the practice of the English edition is worth looking at. There, the Banco Delta-North Korean story was covered in a number of articles. The *OhmyNews* staff welcomed these articles. Not only did it welcome articles on this topic with no similar coverage elsewhere, there was on the staff an editor who used his experience and knowledge of North Korea to help the journalists with their articles. He was a very good person to have as an editor in the English language edition, to be helpful towards covering that important aspect of the Korean story. Unfortunately he is not an editor any longer as they had to cut back on their editors.

Journalism articles written about *OhmyNews* rarely describe this aspect of *OhmyNews*, that reporters need a supportive editorial staff that is knowledgeable about the issues and willing to be

really helpful to the people doing the reporting so that they are not just off on their own but they can have a discussion and a communication with the people who work with the paper itself.

Jay Hauben: As a minor footnote, Ronda has some evidence that the U.S. embassy in South Korea reads *OhmyNews*. She heard this from the U.S. ambassador to South Korea and read it in a U.S. State Department press release.

Ronda Hauben: The press release referred to one of my articles and something that somebody else had written.

Dr. Gabriele Hooffacker: So netizen journalism is something political?

Jay Hauben: From our point of view, yes.

Dr. Gabriele Hooffacker: I'm asking this because some German publishers/newspapers have another kind of amateur journalism in mind. They think that journalists are too expensive because they must be paid wages. So they tell their readers to send them photos, videos and texts and say that they will publish them. The journalist union is not happy about this.

Ronda Hauben: The dean of the Columbia University School of Journalism in New York City wrote an article in the *New Yorker* magazine where he complained about what he called 'citizen journalism' and referred to *OhmyNews*. He wrote that it was "journalism without journalists." When you carefully read his article, what it came down to, was that the business form of journalism - which is basically corporate-dominated in the U.S. and which aims to make a lot of money - has very little regard for the nature and quality of the coverage that the newspapers are allowed to do. He was basically defending the business form of journalism in the name of defending the journalists.

He was not defending the journalists because he was not critiquing in any way what the journalists who work for these big corporations must do to keep their jobs and the crisis situation that journalism is in in the U.S. because of it.

What was interesting is that he knew about *OhmyNews* and he is the dean of the Columbia Journalism School and yet he presented nothing about the important stories that *OhmyNews* has covered. Instead he referred to one particular day and he listed three stories covered by three different journalists on this day and said this was just like the kind of journalism you would have in a church publication or in a club newsletter. It showed no effort on his part to understand or seriously consider what *OhmyNews* has made possible.

I critiqued what he did in an article in *OhmyNews* International. I also sent an email message to him asking if he had seen a prior article I had done in response to what a professor of the journalism school had posted on 'The Public Eye' at CBS News.com. My prior article answered the same argument the dean was now making. The 'Public Eye' even gave a link to what I had written in *OhmyNews*.

The dean of the Columbia Journalism School answered my email acknowledging that he had seen my answer and still he made the same argument that had been made prior rather than answering my critique of the argument.

One of the things I pointed out in my critique was that *OhmyNews* had helped make it possible for the people of South Korea in 2002 to elect a candidate to the presidency from outside of mainstream political community. The dean mentioned nothing about that when he trivialized what *OhmyNews* has done and what the developments are. He presented none of the actual situation and had instead a trivial discussion about the issues. Yet he was allowed to publish his article in the New Yorker. *OhmyNews* sent my response to his article to the New Yorker. The magazine would not publish it. It was interesting that this is being promoted as the evaluation and the understanding of netizen journalism. It is totally inaccurate.

Dr. Gabriele Hooffacker: I'm afraid that some professional journalism teachers in Germany think in narrow-minded categories and only see the professional standard of journalism and their own journalists but do not realize what the aim of journalism is anymore – the political participation and the control of the government.

Ronda Hauben: What I see is that netizen journalism is getting back to the roots of why you need journalism and journalists.

In the U.S. there is a first amendment because there was an understanding, when it was formulated, that you have to oversee government and that there has to be discussion and articles and a press that looks at what government is doing and that discusses it and that that discussion is necessary among the population. Now the internet is making this possible. But the corporate-dominated, profit-dominated form of journalism in the U.S. will not allow that to happen even on the internet. Netizen journalism fortunately makes it possible.

What is of interest to me is that the Columbia Journalism School claims that it supports ethics in journalism. Yet here is a challenge, a challenge to treat this seriously and to learn about it, to support it, to encourage it and to help it to spread it. Instead, its dean does the opposite.

Jay Hauben: Let me add two points. One is that *OhmyNews* and *Telepolis* pay their contributors. So this is not free journalism. This is a respect for journalistic effort.

The second point is one Ronda is raising in her current research. Not only is this new journalism getting back to the roots and the purpose of journalism but also it is doing something new and different. Is there something more than just being the real journalist taking over because mainstream journalism is failing? There is an intuition that the internet is making possible a new journalism. Perhaps the Chinese are speaking to that when they ask, "Are we not being citizens and is it not journalism when we communicate with each other about the news as we see it and our understandings as we have them?"

Dr. Gabriele Hooffacker: Do you think that netizen journalism will affect the mainstream journalism or that the mainstream journalism will learn from it?

Ronda Hauben: It turned out to be very surprising to me that the reporter from *Voice of America Korea* asked me some very serious and interesting questions. I would have expected maybe left-wing journalist to ask these questions but not a mainstream or State Department journalist.

Why was the Voice of America reporter asking me these questions? Perhaps some people at the State Department realized there was serious discussion going on online reflected by my articles but not on Voice of America or in the mainstream media. And if there is discussion among people about what is going on, then that leads to the mainstream media having to learn something or become irrelevant.

Maybe that is already happening because even BBC is exploring ways of opening up its discussions and processes. Maybe netizen journalism has already had some impact and there is change happening even though we do not see it yet.

Jay Hauben: Maybe also the distinction between mainstream and other media is changing. At least in South Korea, *OhmyNews* is already a mainstream media. Three years after it was created, *OhmyNews* was reported to be one of the most important media in the whole society, judged to be among the top six most influential media in South Korea.

It is not so clear that what we call the great media or the mainstream media is left alone to have that title. The position might be changing. The founder of *OhmyNews*, Mr. Oh Yeon-Ho says he would like *OhmyNews* to be setting the news agenda for the Korean society. It is his objective that *OhmyNews* be the main, mainstream media or at least he says 50 percent of what happens in the mainstream media should be from the progressive point of view. There should not be only the conservative mainstream media but there should be a progressive mainstream media as well and then those two together – that is what would serve the society.

Ronda Hauben: Let me add that in South Korea other online progressive publications have developed and online conservative publications have developed. The media situation is much more vibrant now than it had been, I think as a result of what Mr. Oh Yeon-Ho has achieved.

Dr. Gabriele Hooffacker: When you look into the future and imagine what journalism and netizen journalism will be like in 10 years? What are your expectations? What do you hope and what do you think?

Ronda Hauben: It is an interesting challenge that is being put to us. There is a lot of support from governments and others towards making big

money off of the internet. But meanwhile for example the U.S. society is in deep trouble because of the ability of government to do things without listening to the people or considering what the people's desires are. In my opinion netizen journalism holds out the hope and the promise that there can be a means for the citizens and the netizens to have more of a way of having what is done by government be something that is a benefit to the society instead of harmful. The form this will take is not clear. But one of the things that Michael wrote in 1992-1993 was that the net bestows the power of the reporter on the netizens. He saw that that was already happening then. And we see *Telepolis* which last year celebrated its 10th anniversary and which unfortunately we did not get to talk about now but which has pioneered a form of online and netizen journalism that really is substantial and which has achieved some very important things. There is *OhmyNews* in South Korea and there are the Chinese bloggers and people posting to the forums. Even in the U.S. some important news forums and blogs have developed.

Jay Hauben: There are also the people's journalists in Nepal who took up to tell the story to the world about the struggle against the king's dictatorial powers.

Ronda Hauben: They were able to do that because of *OhmyNews International*.

I just looked at those few countries for a conference presentation I gave recently in Potsdam. I did not look at all the other places where things are developing. It turns out that online there is a very vibrant environment. Something is developing and that is a great challenge to people interested in this, to look at it seriously and try to see, firstly what is developing and secondly, is there a way to give it support and to figure out if there is way of beginning to have some conferences for people to get together and have serious papers about what is happening and some serious discussion towards the question, can we give each other help for example to start something like *OhmyNews* or *Telepolis* in America or similar things elsewhere. I feel that something will turn up. It is exciting that so much is in fact going on.

**Netizens: On the History and Impact of Usenet and the Internet*, Michael Hauben and Ronda Hauben, Wiley-IEEE Computer Society Press, Los Alamitos, 1997, ISBN: 978-0-8186-7706-9.

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