## How the Internet is Changing the Concept of Journalism

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Summary of the opening keynote address of the Third Conference on Innovation Journalism.

Technology is changing the economics of journalism. In radio and television time is limited. In print journalism space is limited. But on the Internet there is essentially an unlimited amount of time and an unlimited amount of space. The limitation is the attention span of the Internet users.

There are over a billion people on the Internet now. Although it sounds like a big number, there are still 5,5 billion to go. Those of us who are interested in spreading the Internet realize that we are only 15 percent done. China is now the biggest Internet user. There are more Chinese online than there are U.S. citizens. There are around 220 million users in U.S. and over 300 million users in China. Chinese spend more time on the net than average Americans. The PEW foundation suggests about ten hours per week on average for American citizens on the net. In China it is 15 hours per week. It illustrates how people who have been starved for information are grasping this opportunity to get more information in a very dramatic way. So this is part of the reason that Google concluded it should be providing information in China despite the constraints and restrictions that we are required to observe under the law in China about certain content.

The economics of the information and the way in which it is produced and distributed is having a significant impact on what I consider to be news and journalism. The impact is deepened by the increased availability of Internet and to that it has become really easy to publish content on the Internet.

When the Web came, there were few web editors of the 'what-you-see-is-whatyou-get' type. But the web browsers could already from the start show the HTML source that produced the web-page. People learned almost organically how to create web pages by copying the HTML code of others. That made all of us students of HTML, and later XML. The result was a virus-like spread of knowledge and understanding about how to use the medium, although some people in the intellectual property community were levitating above their seats. This speeded up the development of new applications that made it easier to publish on the Internet, leading up to web logs. Today there are a million or more people blogging.

The text based web logs are rapidly evolving into audio and video. The iPod, originally intended just for downloading and listening to music, is being used for downloading and listening to peoples' audio blogs. As memory gets cheaper and bandwith increases, videoblogging will be a very natural evolution. The iPods are turning into vPods. Blogging is branching out into audioblogging and

videoblogging. We are being offered an increasing range of perspectives to choose among on various topics. Technologies like RSS make it possible for people to keep apprised of updates on the web pages of their interest.

Some feel that the Internet is overloading the ability of people to absorb and deal with information. But people have always learned very quickly how to deal with large quantities of information, whether it was radio, television, newspapers, magazines or books. This also applies to the Internet.

We don't read every book that is published. We don't listen to every radio programme, and we don't watch every TV-show. We select among them and we find ways to get advice about which shows to follow. Sometimes we take advice from ratings, sometimes we turn to trusted editors of newspapers or other publications to get advice about what we should be paying attention to. Sometimes we ask our friends, and sometimes we even think ourselves and try to make our own independent decisions. We will find ways to find our ways through the blogs, just as we have in the other media.

The blogging world is interesting in that it is online and machineable, that is to say it can be read, indexed, and searched by computer programmes. That allows feedback that does not occur in other media. eBay introduced a feedback system for sales services, where customers have the ability to say whether they were satisfied or not satisfied with their purchases. It is easy to imagine feedback loops of that kind when the public reacts to the material that has been put online by the bloggers, giving a general sense of an average reader opinion.

Vinton G. Cerf is vice president and chief Internet evangelist for Google, where he is responsible for identifying new enabling technologies. Known as one of the "Fathers of the Internet," Cerf is the co-designer of the TCP/IP protocols and the architecture of the Internet. In 1997, President Clinton presented the U.S. National Medal of Technology to Cerf and his partner, Robert E. Kahn, for founding and developing the Internet. Kahn and Cerf were named the recipients of the ACM Alan M. Turing award, often referred to as "Nobel Prize of Computer Science.", for their work on the Internet protocols. Vint Cerf serves as chairman of the board of the Internet Corporation for Assigned Names and Numbers (ICANN), that owns the Internet root domain. Cerf served as founding president of the Internet Society from 1992-1995 and in 1999 served a term as chairman of the Board. Cerf served as a member of the U.S. Presidential Information Technology Advisory Committee (PITAC) from 1997 to 2001 and serves on several national, state and industry committees focused on cybersecurity. Cerf is a Fellow of the IEEE, ACM, and American Association for the Advancement of Science, the American Academy of Arts and Sciences, the International Engineering Consortium, the Computer History Museum and the National Academy of Engineering. Cerf is a recipient of numerous awards and was in December 1994 identified by People magazine as one of that year's "25 Most Intriguing People". Cerf holds a Bachelor of Science degree in Mathematics from Stanford University and Master of Science and Ph.D. degrees in Computer Science from UCLA.