

PROCEEDINGS
OF
THE TRILATERAL SEMINAR ON
SCIENCE, SOCIETY AND
THE INTERNET

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Notes of Preparation

This proceedings document was compiled from written and audio-taped notes of the seminar sessions and from printed texts submitted by session presenters and coordinators of discussion sessions. Wherever possible, for accuracy, the available printed texts were given precedence over written or audio-taped notes. In both cases, the presentations appearing in this document have been edited for clarity.

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Trilateral Seminar on Science, Society, and the Internet

Co-Chairs' Statement

Few recent advances in science and technology have had more profound impacts on both science and the larger society than the development of information and communications technology, particularly the Internet. First developed as a means for communication among scientists, the Internet continues to change the ways that scientific research and education are conducted. Significantly, it has also come to be used overwhelmingly for non-scientific purposes, and its economic impact on the economy is perhaps greater than any other technology at a similar stage in its adoption. These developments are having substantial impacts on relations between science and society, which have only recently begun to be explored.

As co-chairs of the Trilateral Seminar on Science, Society and the Internet, we had expected that significant distinctions might emerge in the ways that the Internet is being used in China, Japan and the United States. Surprisingly, few such distinctions were evident, although for several reasons, the extent of its use does differ somewhat among the three countries. On the other hand, there were some indications of differing perspectives on the social impacts of expanding Internet use.

Use of the Internet to facilitate scientific collaboration among widely dispersed scientific groups is a significant development. Although no one appears completely certain about what factors result in the success or failure of such “collaboratories”, there was a consensus that use of the Internet for socializing among geographically distant groups may be equally if not more important to success than purely scientific exchanges. The Internet was also cited as an indispensable “platform” for effective collaboration involving academic, industrial and government research facilities.

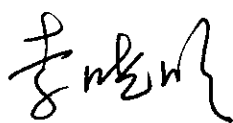
With the emergence of the high speed, broadband Internet, the access gap between developed and developing countries and between urban and rural areas in developed countries has increased. Not only do disadvantaged countries and regions lack access to the hardware required for broadband access. They also lack personnel trained in making effective use of applications designed for broadband use. A Japanese government-supported initiative is bringing education-related content to universities in several developing countries in the Asian region, and is helping to develop the skills to deal with broadband applications. Clearly substantial support on the part of

governments of developed countries, and cooperation on the part of those of developing countries, are essential to the success of such initiatives.

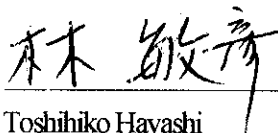
The ability of advanced information and communication technologies to gather, analyze, and disseminate data remains central to the promise and potential of the Internet. Ironically, these may be having a negative impact on its use for scientific purposes. The governments of our three countries have generally agreed with the fundamental scientific norm that with a few obvious exceptions (such as national security), open access to scientific data and information should be actively encouraged. Yet a number of economic, technological and legal pressures on open access are emerging that could seriously impede scientific collaboration, particularly at the international level. Funding choices related to the analysis and dissemination of data must also be faced such as: who pays? how can cost recovery be managed? what about long-term data preservation? who should make technical choices such as those regarding standards?

Wise governance of the Internet has become a significant international issue. Scientists can take a passive position and adapt as best they can, leaving it to governments to wrestle with the novel issues that are evolving along with the Internet. Or they can assume a proactive, internationally coordinated response by working with governments to develop policies consistent with the scientific norm of open access to scientific data at both the domestic and international levels.

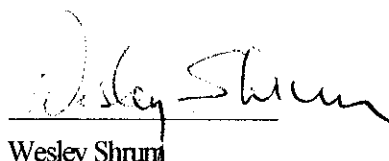
The new forms of mediation between science and society being brought about by the Internet may be impelling scientists to assure that the governance of this now indispensable tool will continue to be used for the benefit of science and, ultimately, for the larger society.



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