APPENDIX 2: INTERNATIONAL ACADEMIC NETWORKSHOP (IANW)

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The annual International Academic NetWorkshops (IANW) began in 1982 and continued until 1989. The first two (1982 - London, 1983 - Oslo) were organized by Peter Kirstein of University College London. This was an early time for national and international networks and these first two meetings were attended by a few individuals. At the Oslo workshop, which Kirstein did not attend, Larry Landweber led the meeting and assumed responsibility for future IANWs. Later IANWs were held in Paris (1984), Stockholm (1985), Dublin (1986), Princeton (1987), Jerusalem (1988), and Sydney (1989).

Each year, as the word spread, additional countries were represented:

- 1982 Italy, Norway, Sweden, Switzerland, United Kingdom, United States, West Germany
- 1983 Finland
- 1984 Belgium, Canada, France, Ireland, Israel, Spain
- 1985 South Korea, Netherlands
- 1986 Australia, Indonesia
- 1987 Brazil, Chile, China, Costa Rica, Hong Kong, India, Japan, Malaysia, Mexico, New Zealand, Singapore
- 1988 Denmark, Ivory Coast
- 1989 Venezuela

These meetings provided an invaluable forum for sharing of information on (inter)national research/academic computer network projects. The goal was to bring together individuals who were leading such projects in their countries or regions. Indeed many of those attending can reasonably be called the "fathers" of their countries' national networks.

The programs for all IANWs included reports on national and international networking projects as well as discussion of relevant technologies, and technical, management and economic issues related to the interconnection of national networks. It should be remembered that the 1980s was a time of great ferment in the networking area. There were competing technologies (Internet, OSI, RSCS, DECNET, and UUCP). Telecom deregulation had not yet begun in most countries. Those attending (and their governments) were not unanimous in their support of a particular technology. As a result, while the discussions were at times heated, they were always insightful and enlightening.

Software was also shared. Two notable examples were the CSNET Phonenet (MMDF) mail relay software, developed by the University of Delaware and the CSNET IP/X.25 software developed by Purdue University. Availability of these packages greatly accelerated the deployment of international connections between the US and other countries.

As an example of meeting goals, the invitation to the 1984 IANW included the following:

> "The current meeting will continue this information exchange and hopefully facilitate planning for interconnection of the various networks. In this regard the meeting should only be attended by individuals who are actively engaged in planning or implementing national or international academic networks. The meeting is not intended as a forum for general discussions about computer networks, but as a working meeting to produce results in the area of Academic network cooperation."

For the 1986 Dublin meeting, the following was included in the invitation. "The previous meetings … have helped enormously in creating a forum for the exchange of ideas in computer networking. They have also created a foundation for the International Networking Fraternity. … However, should it not be possible for you to participate, you are free to suggest or nominate another candidate. Such a candidate should be involved in projects related to the provision of networking facilities to end users."

By 1986, national networking projects that were pushing the state of current networking technology were underway in many countries. Hence it was time to move to consideration of a global high-speed network. The following paragraph emphasizes this point and also contains a reference to the "protocol wars" of the 1980s where Internet technology was competing with the OSI/ISO protocols and commercial networking products such as DECNET. The 1986 invitation included the following:

> "One of the main objectives of the IANW will be to consider a plan for an interesting HIGH function of academic Internetwork. It is intended that we should consider proposing an experimental environment with high speed links and experiment with some interesting services (interactive graphics, supercomputer access, high volume data transfers, multimedia, etc.) on an international basis. Perhaps, a group could be formed from the participants in the networkshop to solicit funds from various governments and agencies for such an Internetwork to materialize. It is about time that we realize that we are dealing with academic networks and as such should be at the forefront of technology, not just waiting for the standards people to record the state of the art of five years ago so that we can adopt it. Therefore it is intended that the meeting should discuss the possibility of reaching an agreement on a proposal (or a process for producing a proposal) which can be presented to the possible funding agencies."

The 1987 IANW was held in Princeton. Its 70 attendees from 28 countries demonstrated that national and international networking had become a global phenomenon. The meeting report included the following:

> "…among the attendees were a mixture of network designers, implementers and funders. The goal of the meeting was to foster an exchange of information between individuals working in these areas in different countries so as to facilitate the continuing development of the international academic/research electronic Internet."

The 1987 meeting was particularly notable in fostering follow-up meetings in Washington that led to the acceleration of connectivity between the NSFNET and other countries. The meeting continued in the following years as the annual meeting of the newly created Coordination Committee for Intercontinental Research Networking (CCIRN).

At the 1989 meeting it was apparent that global interest in the Internet had spread beyond

the early group of innovators, who were primarily interested in building national networks and international connections, to include many in industry, government and academia. As a result, it was decided to hold the first INET conference in 1991 in Copenhagen. This was jointly organized by Frode Greisen, Jun Murai, and Larry Landweber. At this INET, Vint Cerf and Bob Kahn announced the formation of the Internet Society and the adoption of INET as the Society's conference. Landweber joined the Board of ISOC and became its Vice President for Education.

In retrospect, it is clear that the IANWs played an important role in crystallizing the international cooperation and collaboration that later would be key to the development of the global Internet. It provided a forum for sharing ideas, for evaluating the merits of different approaches and, perhaps most important, for network pioneers from around the world to get together in an environment where objective dialog between peers was possible.