

William Aspray

Two Grand Challenge Problems:

True Plug-and-Play Computer Systems for Consumer Use

Develop and implement sociotechnical practices for production of computer systems for consumer use that are so easy to install, initiate, use, maintain, update, enhance, and customize that the average adult can do so without human technical support. These requirements should apply to both hardware and software, and the scope should include any programs or computer devices that are routinely used by adults in the home or in ordinary business practice. Any of these programs should be able to be installed without worrying about incompatibility with other installed programs. Data should be able to be transferred across these programs in a simple and natural way.

A Consumer-Friendly Internet

Identify and implement sociotechnical developments that would make the Internet friendly to the average adult user, independent of his or her technical acumen. This would include consumer choice in which commercial advertising, if any to receive as well as categorization procedures that enable the consumer to select the types of advertisements she or he wishes to receive; transactions that are private and secure; set-up and usage costs that are affordable to virtually all American families; technology that is easy to install and maintain; easy and speedy transmission in various media; and close coordination between the Internet systems and the standard software used for creating materials in various media (word processing, etc.).

BIO:

William Aspray is executive director of Computing Research Association. He has formerly served as a faculty member in mathematics and computer science at Williams College and history of science at Harvard University. He was associate director of the Charles Babbage Institute for the History of Information Processing at the University of Minnesota and director of the IEEE History Center at Rutgers University. He holds a BA and MA in mathematics (Wesleyan) and a PhD in history of science (Wisconsin). His research focuses on history of computing, IT policy, and social and organizational informatics. He will move to the faculty of the recently formed School of Informatics at Indiana University in Fall 2002.