The Case for International Sharing of Scientific Data:
A Focus on Developing Countries

An International Symposium

Charles Vest

Charles M. Vest is President of the National Academy of Engineering and President Emeritus of the Massachusetts Institute of Technology. Dr. Vest earned a B.S. in mechanical engineering from West Virginia University in 1963, and M.S.E. and PhD degrees in mechanical engineering from the University of Michigan in 1964 and 1967 respectively. He joined the faculty of the University of Michigan as an assistant professor in 1968 where he taught in the areas of heat transfer, thermodynamics, and fluid mechanic, and conducted research in heat transfer and engineering applications of laser optics and holography. He and his graduate students developed techniques for making quantitative measurements of various properties and motions from holographic interferograms, especially the measurement of three-dimensional temperature and density fields using computer tomography. He became an associate professor in 1972 and a full professor in 1977.

In 1981 Dr. Vest turned much of his attention to academic administration at the University of Michigan, serving as associate dean of engineering from 1981-86, dean of engineering from 1986-1989, when he became provost and vice president for academic affairs. In 1990 he became president of the Massachusetts Institute of Technology (MIT) and served in that position until December 2004. He then became professor and president emeritus. As president of MIT, he was active in science, technology, and innovation policy; building partnerships among academia, government and industry; and championing the importance of open, global scientific communication, travel, and sharing of intellectual resources. During his tenure, MIT launched its OpenCourseWare (OCW) initiative; co-founded the Alliance for Global Sustainability; enhanced the racial, gender, and cultural diversity of its students and faculty; established major new institutes in neuroscience and genomic medicine; and redeveloped much of its campus.

He was a director of DuPont for 14 years and of IBM for 13 years; was vice chair of the U.S. Council on Competitiveness for eight years; and served on various federal committees and commissions, including the President's Committee of Advisors on Science and Technology (PCAST) during the Clinton and Bush administrations, the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, the Secretary of Education's Commission on the Future of Higher Education, the Secretary of State's Advisory Committee on Transformational Diplomacy and the Rice-Chertoff Secure Borders and Open Doors Advisory Committee. He serves on the boards of several non-profit organizations and foundations devoted to education, science, and technology. In July 2007 he was elected to serve as president of the U.S. National Academy of Engineering (NAE) for six years. He has authored a book on holographic interferometry, and two books on higher education. He has received honorary doctoral degrees from fourteen universities, and was awarded the 2006 National Medal of Technology by President Bush.