

The University of Michigan

Millennium Project

The Millennium Project at the University of Michigan is a research center engaged in both the study and creation of the future through over-the-horizon technologies. Located in the Duderstadt Center, the Millennium Project provides a platform for exploring the impact of advanced technology on social institutions, ranging from nation-states to governments and industry to the university itself. In some ways, the Millennium Project is the analog to a corporate R&D laboratory, an incubation center, where new paradigms can be developed and tested. Rather than being simply a “think-tank”, where ideas are generated and studied, the Millennium Project is a “do-tank”, where ideas lead to the actual creation of working models or prototypes to explore possible futures.

During its twenty year history it has received support from the University of Michigan Office of the Provost and Vice President for Research, grants from the National Science Foundation, grants from various foundations including the National Academies and National Research Council.

A complete listing of its activities can be found at the website:

Early Activities

Although the Millennium Project was launched in 1996 as a platform for academic activities, with the University providing seed funding for an initial five-year period (to the year 2001, the Third Millennium), the project rapidly evolved to encompass an unusually broad range of scientific, technological, education, and policy issues, supported by both government agencies and foundations.

During its first several years, the Millennium Project

was supported primarily through University funding (expiring in 2001) at a level of roughly \$300,000 per year (together with the funding of a secretary and the appointment as President Emeritus). During this period the Millennium Project provided a platform for the creation of the State of Michigan’s first virtual university, the Michigan Virtual Automotive College and then later the early phase of the Michigan Virtual University (still in operation today). It also provided support for an array of instructional and research activities concerning the future of the university, involving several UM schools and colleges (LS&A, Public Policy, Engineering, Education, Information, Residential College) as well as external organizations (National Academies, National Center for Postsecondary Improvement, National Science Foundation, and the One Dupont Circle group of national education organizations), including chairing several major national studies (e.g., the NAS study of the Impact of Information Technology on the Future of the Research University and various COSEPUP studies on federal research policy). It provided as well a platform for the continued involvement in scientific work (e.g., chairing the Nuclear Energy Research Advisory Committee of the Department of Energy and various NSF projects).

In more recent years, the Millennium Project has been predominantly supported from external funding (aside from \$50,000 per year of flexible funding from the Provost and the support of my base appointment as Emeritus President). In particular, it received a major grant from the Atlantic Philanthropies Foundation (\$890,000) and several grants from the National Science Foundation (totaling \$510,000) that have enabled it to work on several projects of particular interest (e.g., developing regional “roadmapping” strategies for the implementation of technology in education and

developing new visions of engineering education, research, and practice). It also attracted grants from nonprofit foundations to support new University activities (e.g., \$610,000 from the Dow Foundation to support postdoctoral students in the new Science, Technology, and Public Policy). Furthermore, several of its external activities have been supported by additional grants channeled through the National Academies or other organizations (e.g., the IT Forum, the COSEPUP Committee on Federal Science and Technology Policy, and the Great Lakes Regional Economic Development project).

More Recent Activities

The Impact of Exponentiating Technologies on Society

The Millennium Project has been heavily involved in activities exploring the impact of disruptive technologies such as info-nano-bio technology that evolve exponentially (e.g., Moore's Law). Working through the National Academies, it played a major effort (the IT Forum) to assess the impact of information and communications technologies on knowledge-intensive organizations such as research universities, corporate R&D laboratories, and national laboratories. Many of these activities continued through the National Science Foundation and other federal agencies with Dan Atkin's appointment as first director of NSF's new cyberinfrastructure division and Jim Duderstadt's role as chair of the NSF Cyberinfrastructure Advisory Committee.

The Future of the University

The Millennium Project continues to be actively involved in studies concerning the future of higher education in general and the research university in particular. These have been coordinated with both national efforts (National Academies, ACE, AAU, NASULGC, AGB, Educause), international groups (the Glicol Colloquium, OECD), and regional efforts (e.g., Michigan, Ohio, North Carolina, Texas, California, Missouri). Of particular note here were my roles

as a member of both the Secretary of Education's Commission on the Future of Higher Education (the Spellings Commission) and the Association of Governing Boards' Task Force on the State of the University Presidency.

National Science Policy

The Millennium Project has supported my major involvement in national science and technology policy. In the early years it enabled me to chair a major blue ribbon study by the National Academy of Engineering concerning the federal investment necessary to sustain the nation's technological leadership (a precursor to the "Gathering Storm" report and the American Competitiveness Initiative); a subcommittee of the National Academy's Committee on Science, Engineering, and Public Policy concerned with measuring performance in basic research and working closely with the Office of Management and Budget; and serving on the guidance committees for studies of Interdisciplinary Research and Major Scientific Facilities. More recently I have served as chair of the National Academies Division of Policy and Global Affairs, its largest research division conducting hundreds of studies in areas such as research policy, education, international development, and international relations.

UM Science, Technology, and Public Policy

The Millennium Project supported the effort to design and launch a graduate certificate program in Science, Technology, and Public Policy program, centered in the Ford School but involving students and faculty from across the University. It helped to attract a \$610,000 grant from the Dow Foundation to support STPP postdoctoral programs, which enabled the University's capacity to expand both instructional and research activities (including both the introduction of an undergraduate course and Washington-based internships).

University of Michigan Energy Research Initiatives

The Millennium Project supported my efforts to chair a major committee exploring major energy

research activities as well as the executive committee of the Michigan Memorial Phoenix Project, eventually merging these committees into a university-wide Michigan Energy Research Council. The first task of this new body was to develop a plan for creating the Michigan Energy Institute as an umbrella organization to coordinate and promote the University's energy research activities (already conducted at a level of \$35 million per year). Working closely with the Vice President for Research, a multiple-year plan was developed for building upon the renovated Phoenix Memorial Laboratory and a combination of state, federal, and private support to position the University as a leader in multidisciplinary research in energy sciences, applications, and policy, with particular emphasis on transportation applications.

Regional Strategies for a Global, Knowledge-Driven Society

The Millennium Project conducted a series of regional economic development studies aimed at developing strategies for building the workforce and knowledge infrastructure necessary to compete in a global, knowledge-driven society. This included a roadmapping study for the State of Michigan that triggered a great deal of interest not only within Michigan but in other states and nations. A broader activity involving the multiple-state Great Lakes region was launched, working with the Brookings Institution. There has been interest expressed in such road-mapping efforts at the international level (Ontario, OECD, and the EU).

The daVinci Project: Creativity, Invention, and Innovation

The North Campus of the University has a formidable concentration of academic programs characterized by the common intellectual activities of creativity, invention, and innovation (e.g., art, architecture, music, engineering, information technology, and design), along with unique commons facilities such as the Duderstadt Center, the Chrysler Center, and the Pierpont Commons. The presence of the Walgreen Center for Performing Arts significantly enhanced the

character of this academic constellation, once referred to by the North Campus deans as the Renaissance Campus.

With the growing priority of the nation given to innovation as the key competency required for economic prosperity and national security in a "flat world", it seems natural to undertake a major effort to better integrate and support joint efforts among these academic units. The Millennium Project continues to support multidisciplinary student innovation projects (Project Inspire).

A Society of Learning

The emerging "perfect storm" of globalization, knowledge economies, demographics, and disruptive technologies has stimulated a growing recognition of the critical importance of lifelong learning in securing economic prosperity, national security, and social well-being. In today's "flat world" (ala Friedman), democratic societies—and state and federal governments—must accept the responsibility to provide their citizens with the educational and training opportunities they need, throughout their lives, whenever, wherever, and however they need it, at high quality and at affordable costs. This has been a major theme at the state, federal, and international level and enabled my leadership role in the Secretary of Education's Commission on the Future of Higher Education and a major study of the future of American research universities conducted by the National Academies of Science, Engineering, and Medicine.

The History of the University

Largely stimulated by Anne Duderstadt's strong interest in the history of the University of Michigan, the Millennium Project launched a number of activities designed both to better document and elevate the awareness of the important role that the University has played throughout its history. Early efforts involved authoring pictorial histories of both the College of Engineering to celebrate its 150th anniversary, a massive photographic history of the University, several books on important University facilities such as the President's House, the Inglis Highlands estate, and the

University campuses through the seasons.

In her role with the Millennium Project, Anne Duderstadt also led the effort to utilize rapidly evolving digital technology to describe the history and character of the University. This included interactive websites, 3-D simulations of the University campus during various periods of its history, and various video and photographic media distributed in digital formats. In addition Anne designed and led students in developing a website (actually, a “web portal) concerning the history of the University, which is continuously evolving (<http://milproj.dc.umich.edu>).

A more complete description of this historical work has been provided in a separate document linked to this section.

Post-Presidency Activities

1996-1997

Sunflower Report
Michigan Strategy
Rebuilding the University
Launch of Media Union
Michigan Virtual Auto College
CMS, Unisys

1997-1998

State Technology Strategy
Committee on Science, Engineering, and Public Policy
Chair, NRC Federal Science and Technology Study
GUIRR-NSB Stresses on the Academy
Stanford National Consortium on Postsecondary Ed
Glion Colloquium
University for 21st Century
Cyber Camp
President Michigan Virtual Auto College
National Academy of Engineering Executive Council
CMS, Unisys

1998-1999

Chair DOE Nuclear Energy Advisory Committee
Chair, Scholarship in the Digital Age
Chair, Future of Science and Engineering
Committee on Science, Engineering, and Public Policy
Director, UM Oberlin Kalamazoo project
Yale Advisory Council on IT
Stanford National Consortium on Postsecondary Ed
Glion Colloquium
National Partnership in Science Computing
Chair, DOE Nuclear Energy Advisory Committee
Ontario Master Plan
UM Supreme Court Case on Affirmative Action
CMS, Unisys

1999-2000

Chair, IT and the Fuyure of the University
Chair, NRC Federal Science and Technology Study
Chair, DOE Nuclear Energy Advisory Committee

Committee on Science, Engineering, and Public Policy
NAE Executive Committee
Stanford National Consortium on Postsecondary Ed
Glion Colloquium
Advisor, Naval Postgraduate School
UM Supreme Court Case on Affirmative Action
CMS, Unisys, Diamond Cluster

2000-2001

Chair, DOE Nuclear Energy Advisory Committee
Chair, IT and the Future of the University
Chair, NRC Federal Science and Technology Study
Committee on Science, Engineering, and Public Policy
Stanford National Consortium on Postsecondary Ed
Advisory Board, National Center for Atmospheric
Research
CMS, Unisys

2001-2002

Chair, DOE Nuclear Energy Advisory Committee
Chair, IT and the Future of the University
Chair, NRC Federal Science and Technology Study
Chair, COSEPUP Scientific Research in the States
Committee on Science, Engineering, and Public Policy
Advisory Board, National Center Atmospheric Res
NSF, Advisory Committee on Education
CMS, Unisys

2002-2003

Chair, DOE Nuclear Energy Advisory Committee
Chair, IT and the Future of the University
Chair, NRC Federal Science and Technology Study
Chair, COSEPUP Scientific Research in the States
Committee on Science, Engineering, and Public Policy
Advisory Board, National Center Atmos Research
NSF, Advisory Committee on Education
CMS, Unisys, Diamond Cluster
NSF Grant: \$110,000 for Nuclear Fission curriculum

2003-2004

Chair, NRC IT Forum
Chair, NRC Federal Science and Technology Study

<p>Committee on Science, Engineering, and Public Policy DOE Secretary Committee on Research Chair, NAE Study of Engineering Research Advisory Board, National Center Atmospheric Res UM Chair, STPP Committee UM Chair, Hydrogen Initiatives Commission UM Co-Chair, World University Workshop CMS, Unisys, Diamond Cluster Atlantic Philanthropies Grant (\$890,000 to UM)</p> <p>2004-2005</p> <p>Chair, NRC IT Forum Chair, COSEPUP FS&T Chair, NAE Engineering Research Co-Chair V Glion Conference Chair, UM Science, Tech, and Pub Policy Committee Chair, Hydrogen Initiatives Team Chair, UM Phoenix Project Executive Committee Chair, NRC Workshop on OMB Performance Metrics Chair, WASC Accreditation Team Member, Kansas City Project Team Member, Great Lakes Brookings Project Unisys, Diamond Cluster</p> <p>2005-2006</p> <p>Chair, NRC IT Forum Chair, COSEPUP FS&T Chair, NAE Engineering Research Chair, Cyberinfrastructure Advisory Committee, NSF Chair, Presidential Search Committee, NAE Member, Spellings Commission, D Ed Member, AGB Task Force on University Presidency Member, UC Task Force on Compensation, Accountability, and Transparencies Chair, STPP Program Chair, Michigan Energy Research Council Member, Tulane University Post-Katrina Planning Member, KC Project Team Member, Great Lakes Brookings Study Member, AAAS Executive Council Funding, Atlantic Philanthropies, IT Leadership (\$890,000) Funding NSF, 21st Century Engineering (\$250,000) Funding, STPP Postdoc, Dow Foundation (\$610,000)</p>	<p>Funding, MilProj, GKCCF (\$42,500) Unisys, Diamond Cluster</p> <p>2006-2007</p> <p>Member, Intelligence Science Board Chair, NAE Engineering Research Study Chair, Cyberinfrastructure Advisory Committee, NSF Chair, Presidential Search Committee, NAE Member, Spellings Commission, D Ed Member, AGB Task Force on University Presidency Co-Chair, Glion Colloquium Chair, NRC Review Committee for Keck Futures Program Chair, STPP Program Co-Chair, VI Glion Colloquium Chair, Michigan Energy Research Council Member, Advisory Committee, New Economy Initiative for Michigan Member, Detroit Renaissance Team Member, Executive Council, AAAS Unisys Funding NSF, 21st Century Engineering (\$250,000) Funding, STPP Postdoc, Dow Foundation (\$610,000)</p> <p>2007-2008</p> <p>Member, Intelligence Science Board Chair, NAE Engineering Research Study Chair, Cyberinfrastructure Advisory Committee, NSF Chair, NRC Review Committee for Keck Futures Program Chair, Brookings Next Energy Project Member, Spellings Commission, D Ed Member, Evolution of the Research University Project, NRC Member, Red Team to Assess 20 year Strategy for Nuclear Energy Research Member, UC Regents Task Force on Accountability and Transparency Member, Chicago Council study of Regional Economic Development Member, AGB, Miller Center, Public Purpose Member, Advisory Board, UM National Depression Center Unisys</p>
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Funding, STPP Postdoc, Dow Foundation (\$610,000)

2008-2009

Member, Intelligence Science Board
 Co-Chair, VII Glion Colloquium
 Chair, Brookings Next Energy Project
 Co-Chair, NSF Roundtable of Global Sustainability
 Member, Policy and Global Affairs Committee,
 NRC
 Co-Director, STPP Program
 Member, Executive Council, AAAS
 Member, Chicago Council study of Regional Economic
 Development
 Member, UC Regents Task Force on Accountability
 and Transparency
 Member, NAE Study of Lifelong Engineering Learning
 Chair, Study to Assess Economic Progress of
 Greater Kansas City
 Member, UM Bicentennial Planning
 UM Faculty History Project
 Unisys
 Funding, STPP Postdoc, Dow Foundation (\$610,000)
 Funding, Grant from GKCCF (\$72,000)

2009-2010

Member, Intelligence Science Board
 Chair, Brookings Next Energy Project
 Co-Chair, NSF Roundtable of Global Sustainability
 Member, Policy and Global Affairs Committee, NRC
 Member, Chicago Council study of Regional Economic
 Development
 Member, Presidential Search Committee for the
 University of Khalifa
 Member, NAE Lifelong Learning Committee
 Unisys
 Funding, STPP Postdoc, Dow Foundation (\$610,000)

2010-2011

Chair, Policy and Global Affairs Division, National
 Research Council
 Member, National Research Council Governing Board
 Member, National Academies Study of Research
 Universities

Nonresident Senior Scholar, Brookings Institution
 Member, President's Project Advisory Committee,
 Member, President's Project Advisory Committee,
 Facility for Research on Ion Beams (FRIB)
 Co-Chair, VIII Glion Colloquium
 Director, Chicago Council Midwest Master Plan
 Member, IT Council
 Member, UM History and Traditions Committee
 Co-Director, STPP Program
 Member, Executive Council, AAAS
 Unisys
 Funding, STPP Postdoc, Dow Foundation (\$610,000)
 Funding, NSF, Glion VIII Colloquium (\$99,000)

2011-2012

Chair, Policy and Global Affairs Division, National
 Research Council
 Member, National Research Council Governing Board
 Member, National Academies Study of Research
 Universities
 Nonresident Senior Scholar, Brookings Institution
 Member, President's Project Advisory Committee,
 Facility for Research on Ion Beams (FRIB)
 Member, Board of Directors, DOE CASL
 Chair, Festschrift for Dan Atkins
 Chair, NSF DLI Conference
 Chair, Future of the DC
 Member, IT Council
 Member, UM History and Traditions Committee
 Co-Director, STPP Program
 Unisys
 Funding, NSF, Glion VIII Colloquium (\$99,000)
 Funding, NSF Workshop on DLI (\$89,000)

2012-2013

Chair, Policy and Global Affairs Division, National
 Research Council
 Member, National Research Council Governing Board
 Member, National Academies Study of Research
 Universities
 Nonresident Senior Scholar, Brookings Institution
 Member, President's Project Advisory Committee,
 Facility for Rare Ion Beams, MSU
 Member, Board of Directors, DOE CASL

Co-Chair, IX Glion Colloquium
 Chair, Festschrift for Dan Atkins
 Chair, NSF DLI Conference
 Member, Review of UT Fracking Study
 Member, NAE, Educate to Innovate Study
 Funding, NSF Workshop on DLI (\$89,000)

2013-2014

Chair, Policy and Global Affairs Division, National
 Research Council
 Member, National Research Council Governing Board
 Member, National Academies Study of Research
 Universities
 Nonresident Senior Scholar, Brookings Institution
 Member, President's Project Advisory Committee,
 Facility for Rare Ion Beams, MSU
 Chair, Board of Directors, DOE CASL
 Co-Chair, X Glion Colloquium
 Member, Advisory Committee, National Center for
 Nuclear Weapons Verification Technology
 Member, American Academy of Arts & Sciences
 Committee on National Science Policy
 Member, UM IT Council

Major Policy Studies

National Science Board

1982 University Industry Research NSB
 1986 Undergraduate S, M, E Education NSB
 1987 NSF in Polar Regions NSB
 1988 State of U.S. S&E NSB
 1989 Foreign Involvement in US Universities NSB
 1989 Loss of Biological Diversity NSB
 1992 A Foundation for the 21st Century NSB
 1993 Desktop to Teraflop NSB
 1994 State of US S&E NSB
 1995 K-12 STEM Education
 1996 US S&E in Changing World NSB
 1998 Graduate Postdoc Education NSB
 1998 NSB Strategic Plan
 2000 NSB History in Highlights
 2006 NSF 2020 Strategic Plan NSB

Other NSF Efforts

Nuclear Engineering Minor Study
 Strategic Plan Input for NSF
 ACCI Reports

National Science Policy

1992 Chair, NSB Study of Future of NSF
 1998 FS&T Committee
 1998 GUIRR-NSB Stresses on the Academy
 1999 Draft Proposal NSF NSB
 2000 FS&T Op Ed
 2002 Triana NASA Study
 2001 Chair, COSEPUP Scientific Research in the
 States
 2003 Chair, NAE Study of Engineering Research
 2003 DOE Secretary Committee on Research
 2006 Chair, NRC Review Committee for Keck
 Futures Program
 2009 Member, President's Project Advisory
 Committee, FRIB
 2010 Chair, Policy and Global Affairs Division,
 National Research Council

National Higher Education Policy

1990s Diversity (Michigan Mandate Leadership)
 1994 Chair, NASULGC Federal Relations
 Committee
 1994 Direct Student Lending Act
 1995 BHEF Study with Red Poling
 1998 President, Michigan Virtual University
 1998 GUIRR-NSB Stresses on the Academy
 1998 University for 21st Century
 1999 Restructuring Intercollegiate Athletics
 1999 Director, UM Oberlin Kalamazoo project
 2000 NASULGC White Paper
 2000 ACE Presidency
 2000 EDARPA Letter
 2001 COSEPUP EARPA
 2005 Fixing the Fragmented University
 2005 Spellings Commission Framing Paper
 2005 Spellings Commission Quality Report
 2005 Member, Spellings Commission, D Ed
 2005 Chair, Spellings Quality Subcommittee
 2005 Member, AGB Task Force on State of
 University Presidency

2005 Member, UC Task Force on Compensation, Accountability, and Transparencies
 2005 Member, Tulane University Post-Katrina Planning
 2005 Learn Grant Act
 2005 NACME Diversity Talk
 2006 Leadership Imperative AGB
 2006 Spellings Commission Report
 2007 Member, Evolution of the Research University Project, NRC
 2007 Member, AGB, Miller Center, Public Purpose
 2008 Miller AGB Duderstadt Final
 2010 Member, National Academies Study of Research Universities
 2010 Director, Chicago Council HE Master Plan
 2011 New School Conference
 2012 AGB Research Universities Duderstadt
 2012 De Lange Rice Address JJD
 2012 National Academies Research University Report
 2012 National Academies Research University Summary

Economic Development

1999 Ontario Master Plan
 2003 Regional Learning Ecologies
 2004 Member, KC Project Team, Time to Get It Right
 2004 Member, Great Lakes Brookings Project
 2005 Chair, Michigan Energy Research Council
 2005 Gathering Storm
 2005 Michigan Roadmap
 2005 Time to Get It Right KC
 2005 Member, Great Lakes Brookings Study
 2006 Member, Advisory Committee, New Economy Initiative for Michigan
 2007 Chair, Brookings Next Energy Project
 2007 Member, Chicago Council study of Regional Economic Development
 2007 Chicago Midwest Media Project
 2007 Michigan Roadmap Redux
 2008 Chair, Study to Assess Economic Progress of Greater KC
 2009 Kansas City-time-to-get-it-right-Update
 2010 Brookings Hubs of Innovation

2010 Director, Chicago Council HE Master Plan
 2011 Midwest Master Plan Launch
 2011 Midwest Master Plan Heartland Paper

Information Technology and Cyberinfrastructure

1999 Chair, Scholarship in the Digital Age
 2000 Chair, ITFRU
 2003 Chair, IT Forum
 2003 Preparing for the Revolution
 2005 Chair, NSF Cyberinfrastructure Committee
 2011 Chair, Festschrift for Dan Atkins
 2011 Chair, NSF DLI Conference
 2011 Chair, Future of the DC
 2012 NSF DLI Workshop Description

Engineering

2003 Chair, NAE Study of Engineering Research
 2004 21st Century Engineering
 2005 Engineering Research and America Future
 2005 PI NSF, Flexner - 21st Century Engineering
 2007 5XME Workshop
 2007 Engineering Flexner Report
 2008 ABET Effort
 2008 Member, NAE Study of Lifelong Engineering Learning
 2009 Brookings Energy Report
 2012 Member, NAE, Educate to Innovate Study

Energy-General

2003 DOE Secretary Committee on Research
 2003 DOE-SC SWOT Analysis
 2003 DOE_Task_Force
 2005 Phoenix Energy Institute
 2007 Chair, Brookings Next Energy Project
 2009 Brookings Energy Report
 2011 Glion VIII Duderstadt Black Swans
 2012 Member, Review of UT Fracking Study

Energy-Nuclear

1999 Chair DOE Nuclear Energy Research Advisory Comm
 2000 DOE Nuclear Energy Strategy

2001 Nuclear Engineering Minor Proposal
2002 NSF Grant: \$110,000 for Nuclear Fission minor
2004 Nuclear Energy France
2004 DOE Study of Research Priorities
2004 Energy France
2009 Member, President's Project Advisory
Committee, Facility for Rare Ion Beams, MSU
2012 Member, Board of Directors, DOE Coalition
for Advance Simulation of Light Water Reactors

International Issues

1989 UM International Center
1992 Tree Tops Strategy for State Support
2002 JAPAN Policy Discussions
2002 Nagoya Keynote Lecture
2003 UM Co-Chair, World University Workshop
2005 Canadian Provosts Briefings
2007 Salzburg Seminars
2008 Co-Chair, NSF Roundtable on Global
Sustainability

Glion Colloquium Topics

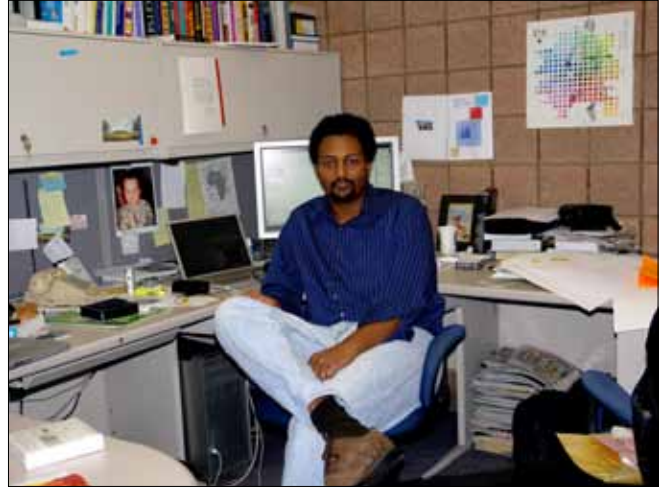
1999 Glion I Challenges Facing Higher Education
2001 Glion II University Governance
2002 Glion III Walls Come Tumbling Down
2003 Glion IV Reinventing the University
2005 Glion V Universities and Business
2007 Glion VI Globalization of HE
2009 Glion VII Universities and Innovation
2012 Glion VIII Global Sustainability
2013 Glion IX Sustainability of Research University
Paradigm



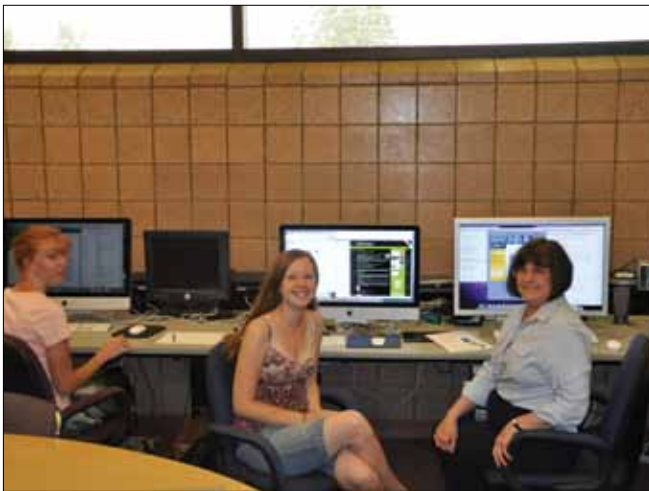
The launch of the Millennium Project



Christine Grant



Dan Fessahazion



Molly Wagner and Alex Burrell



Nathan Korth



Lori Castle



Ty Rex



Carole LaMantia



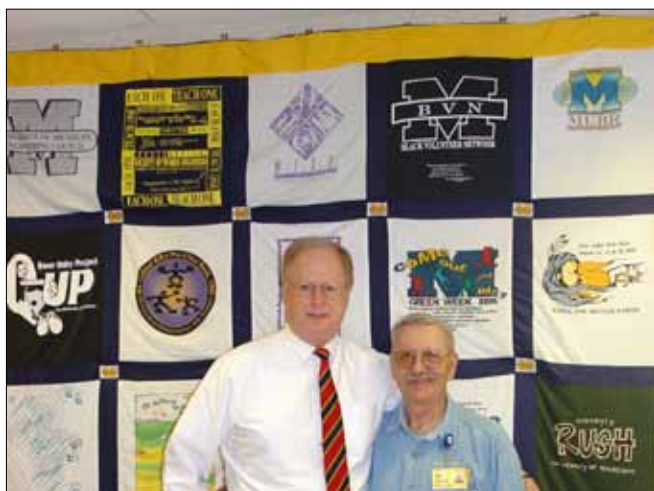
JoAnn Kerr



Liene Karels



Mary Miles



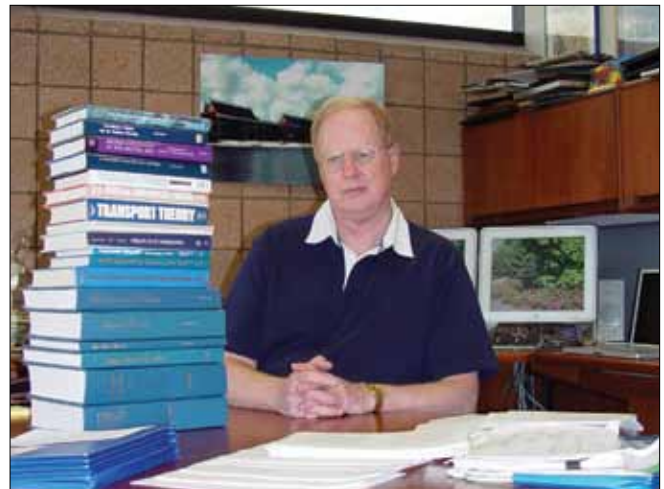
Jim and Frank Russell



Molly, Alex, Anne, and Dan



JJD's Office (always in disarray)



Activities of the Millennium Project



Producing books and reports