

# Timothy L. Nyerges

Cumulative Curriculum Vitae – January 16, 2013

## PERSONAL

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## EDUCATION

1977-1980 Ph.D. Geography, Ohio State University.  
Dissertation: Modeling the Structure of Cartographic Information for Query Processing  
1975-1976 M.A. Geography, Ohio State University.  
Thesis: Cognitions of Socio-Psychological Stress and the Cognitive Image of Accessibility  
1974-1975 B.A. Geography with Distinction, Ohio State University  
Senior Honors Paper: Cognitions of Socio-Psychological Stress in the Urban Environment: Toward the Definition of a Cognitive Stress Topography  
1969-1972 Emphasis in Economics  
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## POSITIONS HELD

9/85 - present Assistant Professor, Associate Professor (1991), Professor (1998), Dept of Geography, Smith Hall, Box 353550, University of Washington, Seattle, Washington 98195.  
Director, Professional Masters Program in GIS for Sustainability Management, Professional, and Continuing Education, University of Washington.  
Affiliate Professor, Interdisciplinary PhD in Urban Design and Planning, University of Washington.  
8/85 - present. Principal, GeoInfo Consulting, 18612 29<sup>th</sup> Ave SE, Bothell WA, 98012.  
3/97 – 9/00. Principal, Geo Choice Inc., 7817 235<sup>th</sup> Place NE, Redmond WA, 98053.  
8/84 - 8/85. Senior Consultant, NW Cartography, 9618 Roosevelt Way NE, Seattle WA 98115.  
11/83 - 7/84. Director of Technical Marketing, GeoSystems Software, Bellevue WA 98009.  
3/83 - 10/83. Digital Mapping and GIS Consultant for Wild-Heerbrugg Switzerland, 14521 NE 6th Place, #3, Bellevue WA 98007.  
7/80 - 1/83. Principal Consultant and Software Project Manager, Synercom Technology, Inc., Sugar Land TX 77478.  
8/79 - 6/80. Graduate Research Associate, Department of Geography, Ohio State University, Columbus OH 43210.  
9/77 - 6/79. Graduate Teaching Associate (full course responsibility), Department of Geography, Ohio State University, Columbus OH 43210.  
9/75 - 8/77. Graduate Teaching Assistant, Department of Geography, Ohio State University, Columbus OH 43210.  
1/74 - 8/75. Research Aide for R. G. Golledge (PI). Cognitive Configurations of Urban Environment. NSF Project #65-37969, Department of Geography, Ohio State University, Columbus OH 43210

## REFEREED PUBLICATIONS

T. Nyerges, M. Roderick, S. Prager, D. Bennett, and N. Lam 2014. Foundations of sustainability information representation theory: spatial–temporal dynamics of sustainable systems,

- International Journal for Geographical Information Science**, accepted for special issue on Space and Time Research in Geographic Information Science.
- M. Roderick, T. Nyerges and M. Avraam 2014. CyberGIS Implementation Considerations for Structured Participation Methods in Collaborative Problem Solving, in S. Wang and M. Goodchild (eds.) **CyberGIS: Fostering a New Wave of Geospatial Discovery and Innovation**, Springer, New York. accepted.
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- R. Aguirre and T. Nyerges 2014. An Agent-Based Model of Participatory Decision Making for Sustainability Management, **Journal of Artificial Societies and Social Simulation**, January, 2014.
- T. Nyerges, M. Roderick, and M. Avraam 2013. CyberGIS Designs of Structured Participation for Collaborative Problem Solving, **International Journal for Geographical Information Science**, special issue on CyberGIS, 27(11):2146-2159.
- S. Wang, L. Anselin, B. Bhaduri, M. Goodchild, Y. Liu, T. Nyerges, N. Wilkins-Diehr 2013. CyberGIS Software: A Synthetic Review and Integration Roadmap, **International Journal for Geographical Information Science**, special issue on CyberGIS, 27(11):2122-2145.
- S. Wang, N. R. Wilkins-Diehr, T. Nyerges, 2012. Community Activity: Workshop Report, CyberGIS – Toward synergistic advancement of cyberinfrastructure and GIScience: A workshop summary, **Journal of Spatial Information Science**, <http://josis.org/index.php/josis/article/viewFile/83/67>.
- R. Aguirre and T. Nyerges, 2011. Geovisual Evaluation of Public Participation in Decision Making: The 4D Grapevine Technique, **Journal of Visual Languages**, 22(4):305-321.
- T. Nyerges and R. Aguirre, 2011. Public Participation in Analytic-Deliberative Decision Making: Evaluating a Large-Group Online Field Experiment, **Annals of Association of American Geographers**, 101(3):561-586.
- T. Nyerges, K. Belpaeme, T. Haddad, and D. Hart, Creating a Usable Atlas, in Wright, D.J., Dwyer, E., and Cummins, V. (eds.), 2010. **Coastal Informatics: Web Atlas Design and Implementation**, IGI Publishers, pp. 256-266.
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- P. Jankowski, T. Nyerges, S. Robischon, D. Tuthill, K. Ramsey. 2006 Design Considerations for Collaborative, Spatio-Temporal Decision Support Systems, **Transactions in GIS**, 10(3): 335–354
- T. Nyerges, K. Ramsey, and M. Wilson, 2006. Design Considerations for an Internet Portal to Support Public Participation in Transportation Improvement Decision Making, in Shivanand Balram and Suzana Dragicevic (eds.) **Collaborative Geographic Information Systems**, Idea Publishing, Hershey PA, pp. 208-230.
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## BOOKS

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#### REPORTS/PAPERS READ OR/IN PRINT

- D. Cowen, T. Nyerges, J. Johnston, R. Austin, and M. Reichardt, 2012. Innovative Strategies for Geospatial Programs and Partnerships, National Geospatial Advisory Committee, Subcommittee on Innovative Strategies for Geospatial Programs and Partnerships.  
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- T. Nyerges, Evaluating TIGER Files for Enhanced 911 Emergency Services, Final Report on Task 2, Joint Statistical Agreement between University of Washington and U S Bureau of the Census, March 1990. Contract JSA 88-28.
- T. Nyerges, Development of a State-Route Digital Highway Network for Washington State, Final Report on Task 3, Joint Statistical Agreement between University of Washington and U S Bureau of the Census, March 1990. Contract JSA 88-28.
- T. Nyerges, Software Functionality for Geographic Information Systems in Transportation: Development of a State-Route Digital Highway Network for Washington State, Proceedings of the 1990 Geographic Information Systems (GIS) for Transportation Symposium, American Society of State Highway and Transportation Officials, U. S. Department of Transportation, Federal Highway Administration, San Antonio, TX, March 14-17, 1990, pp. 281-302.
- T. Nyerges, Graphical Methods in Support of Micro-Macro Modeling in GIS, forthcoming Proceedings of the ICA, Budapest, Hungary: International Cartographic Association, August 1989.
- T. Nyerges, Instructional Development in Cartography and GIS at the University of Washington, GIS in Higher Education, Second Annual Meeting, sponsored by the International Geographical Union Commission on GIS and the Ohio State University Department of Geography, June 11, 1989, 8 pp.
- T. Nyerges, TIGER Tales of GIS for Transportation at the University of Washington, State Data Center Western Regional Conference, Seattle, Washington, June 7, 1989, 12 pp.
- T. Nyerges and R. Cihon, Automated Collision Diagram Production, prepared for Washington State Department of Transportation, Contract #GC8286, April, 1989.
- T. Nyerges, GIS Support for Micro-Macro Spatial Transportation Modeling, Proceedings of Auto-Carto 9, Baltimore, MD: American Society of Photogrammetry and Remote Sensing and American Congress on Surveying and Mapping, April 1989, pp. 567-579.
- T. Nyerges, Components of Model Curricula for GIS in University Education, Proceedings, Auto-Carto 9, Baltimore, MD: American Society of Photogrammetry and Remote Sensing and American Congress on Surveying and Mapping, April, 1989, pp. 199-204.

- T. Nyerges, Design Considerations for Transportation GIS, paper presented at the Annual Meetings of AAG, Baltimore, MD: Association of American Geographers, March 1989.
- T. Nyerges, A Grammar for Cartographic Databases, in Report from Languages of Spatial Relations: Specialist Meeting for NCGIA Research Initiative 2 sponsored by the National Center for Geographic Information and Analysis, February 19-22, 1989, 1 pp.
- T. Nyerges, Nature of Spatial Data - Part I: Databases as Models of Reality and Nature of Spatial Data - Part II: Example Database Models, invited lectures submitted for the core curriculum of the National Center for Geographic Information and Analysis, January 1989.
- T. Nyerges and K. Dueker, Geographic Information Systems in Transportation: An Abridgement, presented at Meetings of the Transportation Research Board, Washington, D. C., January 1989.
- T. Nyerges and K. Dueker, Geographic Information Systems in Transportation, invited summary paper included in Proceedings, of the Eastern and Western Computer-Assisted Cartography Conferences in Transportation, published by the Federal Highway Administration, Planning Division, HPN-22, Washington, D. C., July, 1988.
- T. Nyerges, Spatial Database Design for Transportation Databases, Proceedings, Eastern and Western Computer-Assisted Cartography Conferences in Transportation, September 1987, published July 1988.
- T. Nyerges, GIS Research Issues Identified During a Cartographic Standards Process, Proceedings, of International Symposium on Geographic Information Systems, November 1987, published August 1988.
- T. Nyerges, Digital Mapping System Guidelines, prepared for State of Alaska Department of Transportation & Public Facilities, Division of Plans, Programs and Budget, under subcontract to Boeing Computer Services Professional Services Group, April, 1988.
- T. Nyerges, A Workshop on Digital Cartographic Data Standards, invited paper by the American Cartographic Association, Proceedings, American Congress on Surveying and Mapping, St. Louis, MO, March 1988.
- Boeing Computer Services and T. Nyerges, Highway Analysis System - Digital Mapping System Interface Specification and Preliminary Design, prepared for the State of Alaska Department of Transportation and Public Facilities, March, 1988.
- P. Jankowski and T. Nyerges, Design Considerations for MapPES - A Map Projection Expert System, AAG Poster Session, April, 1987.
- Crain & Associates, Inc. and T. Nyerges, Georeferencing Pilot Project prepared under subcontract to Boeing Computer Services, for State of Alaska Department of Transportation and Public Facilities, March 1987.
- T. Nyerges, Investment Strategies for Digital Mapping DataBase Development, The Third Pacific Northwest Workshop on Photogrammetry, Remote Sensing and Geographic Information Systems, Sponsored by the American Society of Photogrammetry, Portland, Oregon, May, 1985.
- T. Nyerges, GIS Database Modeling of the USPLSS, The Second Pacific Northwest Workshop on Photogrammetry, Remote Sensing and Geographic Information Systems, Sponsored by the American Society of Photogrammetry, Olympia, Washington, May 4, 1984.
- T. Nyerges and C. S. Smyth, IGDMS - An Integrated Geographic Data Management System, International Symposium for Automated Cartography, AUTO-CARTO VI, Ottawa, Canada, October 1983.
- T. Nyerges (as Chair of the Technical Subcommittee) and M. White, National Digital Cartographic Data Standards: Data Set Organization Issues in H. Moellering (ed.), Report 3, National Committee for Digital Cartographic Data Standards, Ohio State University Press, 1983, PP 11-22.
- T. Nyerges, Database Modeling in Distribution Facilities Management, Keystone V Conference, Keystone, Colorado, August 1982, 15 pp.
- T. Nyerges, and G. Jones, An Approach to Distribution Facility Modeling in Public Utility Data Bases, 42nd Annual Meeting of the American Congress on Surveying and Mapping, Denver, CO, March, 1982, 21 pp.
- T. Nyerges, and G. Jones Circuit Trace, A Manual for Software System, Synercom Technology, Inc. of Houston, TX, 1982.

- T. Nyerges, Database Management for Automated Mapping and Facilities Management, Keystone IV Conference, Keystone, Colorado, August 1981.
- T. Nyerges, Cartographic Information Modeling as a Theoretical Basis for Cartographic DataBase Structures Hypergraph-Based Data Structure Seminar, Virginia Commonwealth University, Richmond, Virginia, March 1981, 47 pp.
- T. Nyerges, A Formal Model for Map Description 76th Annual Meeting of the Association of American Geographers, Louisville, Kentucky, April 1980.
- T. Nyerges, Representing Spatial Properties in Cartographic Data Bases Proceedings, 40th Annual Spring Meetings of the American Congress on Surveying and Mapping, St. Louis, Missouri, March 1980.
- T. Nyerges, A Working Manual for GIMMS, Software Support Manual for Department of Geography, The Ohio State University, December 1979.
- T. Nyerges, A Formal Model of a Cartographic Information Base, Proceedings, of International Symposium of Automated Cartography, AUTO-CARTO IV, Reston, Virginia, November 1979.
- T. Nyerges, Cartographic Query Processing in Geographic Information Systems, Proceedings, Tenth Annual Pittsburgh Conference on Modeling and Simulation, University of Pittsburgh, Pittsburgh, Pennsylvania, April 1979.
- T. Nyerges, Cognitions of Socio-Psychological Stress and the Cognitive Image of Accessibility M.A. paper printed in Cognitive Configurations of the Urban Environment, Final Report of NSF Project #65-37969, 1976.
- T. Nyerges, Cognitions of Socio-Psychological Stress in the Urban Environment: Toward the Definition of a Cognitive Stress Topography Senior Honors Paper, Interim Report of NSF Project #65-37969, 1975.

#### **INVITED PRESENTATIONS**

Spatial-Temporal Computing about Sustainability: Perspectives on Complex Sustainable Systems, April 12, 2013, Annual Meeting of the Association of American Geographers, Spatial Thinking, Computing and Applications organized by Chaowei Yang, George Mason University

Structured Participation Toolkit for CyberGIS, CyberGIS' 12 First International Conference on Space, Time, and CyberGIS, August 7, 2012, with Mary Roderick and Michalis Avraam

Participatory GIS Technology and Participatory Evaluation in CyberGIS, CyberGIS' 12 First International Conference on Space, Time, and CyberGIS, August 6, 2012, with Mary Roderick

GIS and Sustainability Information Science: A Coastal Perspective, Oceans and Human Health Seminar Series, University of Washington, National Marine Fisheries Research Center, May 8, 2012

Innovative Geospatial Programs and Partnerships, National Geospatial Advisory Committee Meeting, American Institute of Architects, Washington DC, April 17-18, 2012.

CyberGIS Development: Two Approaches to Emergency Management Innovation, Annual Meeting of Association of American Geographers, February 26, 2012.

Towards Innovative Geospatial Programs and Partnerships, National Geospatial Advisory Committee Meeting, American Institute of Architects, Washington DC, October 4-5, 2011.

Participatory Modeling Methodology: Tightening the GeoWeb Design Loop, ICA/ISPRS Joint Workshops on Our Complex World: Representation, Analysis and Modeling, August 10, 2011, Simon Fraser University, Burnaby, Canada.

Participatory Modeling Methodology on the Geospatial Web, Department of Geography and National Center for Super Computing Applications, May 3, 2011, University of Illinois Urbana-Champaign.

Participatory Modeling Methodology: Tightening the GeoWeb Design Loop, School of Surveying, March 28, 2011, University of Otago, New Zealand.

Participatory Role-Play in Collaborative Decision Support, School of Surveying, March 24, 2011, University of Otago, New Zealand.

Participatory Geospatial Information System Architectures, School of Surveying, March 22, 2011, University of Otago, New Zealand.

Using Online Spatial Decision Support Collaboration Tools in Distance Learning Education, School of Surveying, March 17, 2011, University of Otago, New Zealand.

Online Participatory GIS for Decision Support of Regional Transportation Improvement, Borchert Lecture, November 19, 2010, Department of Geography, University of Minnesota.

Participatory Transportation Improvement Decision Making, International Workshop of Geographic Information for Transportation, Wuhan University, Wuhan China, December 5, 2009.

Benefits of Coastal Web Atlas Interoperability for Regional Ocean Governance, International Coastal Atlas Network Workshop, Trieste, Italy, November 17, 2009.

Participatory Decision Support Tools: Vulnerability Maps Characterizing Regional Climate Variability and Change Impacts, SARP Joint Workshop, Oregon State University, April 21, 2009

Linking Social and Physical Sciences with GIS: Research Directions, NCAR 3rd GIS Workshop Weather, Climate and Impacts, October 29, 2008

Bridging Perspectives by Coupling Data for Environmental Decision Support, NCAR 3rd GIS Workshop Weather, Climate and Impacts, October 28, 2008

Participatory Geospatial Decision Support: Research Findings and Challenges, Tsinghua University, Department of Hydraulic Engineering, June 5, 2008.

Participatory Interaction Modeling of Cyber-enabled Systems, panel session on Cyberinfrastructure, Annual Meeting of AAG, organized by Phil Yang and Rob Raskins, April 18, 2008

Discussant for Critical GIS and Urban Governance papers, Annual Meeting of AAG, Boston, MA, April 19, 2008.

GIS and Data Integration, for GITA Conference, The Ties That Bind: GIS Technology for “The Greater Good”, March 11<sup>th</sup>, 2008.

Design Considerations for a Participatory Web Portal: Decision Support to Enhance Puget Sound Nearshore Improvement, Department of Geography, Simon Fraser University, colloquium series, March 29, 2007.

Participatory Support for Complex Environmental Decision Problems, Department of Geography, University of Southern California, colloquium series, November 3, 2006.

Participatory Support for Complex Environmental Decision Problems, First US-China International Workshop on Digital Government Research and Practice, Co-sponsored by US National Science Foundation and China National Science Foundation, Beijing, China, October 11-13, 2006.

Web Portal Implementation to Support Public Participation in Transportation Decision Making, Digital Government Conference, San Diego CA, May 22, 2006

Tim Nyerges and Dennis Ryan, Urban Ecological Regions, UW Dinner Series, sponsored by UW Development and Alumni Relations, May 4, 2006.

Geospatial Meaning Making in Web Portals, U C Santa Barbara, Department of Geography, April 14, 2006.

Implementing the PGIST Portal: A Web Portal for Analytic-Deliberative Decision Support, the Golledge Lecture, U C Santa Barbara, Department of Geography, April 13, 2006.

PGIST Portal Development: Status Update, Dept of Geography Committee of Visitors, College of A&S, UW, March 28, 2006.

Geospatial Information Technologies for Sustainable Development, Sustainable Societies, FISH/ENVIR 439; PBAF 595A, February 21, 2006.

Collaborative, Environmental Decision Making for Habitat Redevelopment, a facilitated hands-on decision simulation, Charles Simenstead's Wetlands Restoration Course – 2.5 hour session. Eighth year for this activity as the students and instructor enjoy the learning experience as it is conducted in the Geography Dept's Collaboratory, February 18, 2006.

Public Participation in Transportation Decision Making, Digital Government Conference, National Science Foundation, Atlanta, GA, May 16, 2005.

Transportation Improvement Decision Making. For session on Collaborative GIS, AAG Meeting, Denver, CO, April 9, 2005.

Collaborative, Environmental Decision Making for Habitat Redevelopment, a facilitated hands-on decision simulation, Charles Simenstead's Wetlands Restoration Course – 2.5 hour session. Seventh year for this activity as the students and instructor enjoy the learning experience as it is conducted in the Geography Dept's Collaboratory, February 17, 2005.

An Internet Platform to Support Public Participation in Transportation Decision Making aka Participatory GIS for Transportation Project, Digital Government Conference, National Science Foundation, Seattle, WA, May 22, 2004.

Collaborative, Environmental Decision Making for Habitat Redevelopment, a facilitated hands-on decision simulation, Charles Simenstead's Wetlands Restoration Course – 2.5 hour session. Sixth year for this activity as the students and instructor enjoy the learning experience as it is conducted in the Geography Dept's Collaboratory, February 19, 2004.

An Internet Platform to Support Public Participation in Transportation Decision Making: Start-up Phase, Geography Colloquium, January 23, 2004.

Collaborative, Conjunctive Water Resource Administration in the Boise River Basin, Center for Water and Watershed Studies, College of Forest Resources seminar series, October 21, 2003.

Participatory Geographic Information Systems, Computer-Human Interaction Society, Puget Sound Region, May 27, 2003

Collaborative, Environmental Decision Making for Habitat Redevelopment, a facilitated hands-on decision simulation, Charles Simenstead's Wetlands Restoration Course – 2.5 hour session. Fifth year for this activity as the students and instructor enjoy the learning experience as it is conducted in the Geography Dept's Collaboratory, March 6, 2002.

Research Needs for Participatory, Geospatial Decision Support: Linked Representations for Sustainability Modeling, invited position paper for the Workshop on Intersections between Geospatial Information and Information Technology, National Research Council, Computer Science and Telecommunications Board, October 1-2, 2001, Washington, D. C.

Collaborative, Environmental Decision Making for Habitat Redevelopment, a facilitated hands-on decision simulation, Charles Simenstead's Wetlands Restoration Course – 2.5 hour session. Fourth year for this activity as the students and instructor really enjoy the learning experience as it is conducted in the Geography Dept's Collaboratory, March 13, 2001.

Data, Process, and Tools for Transportation Decision-Making, National Academy of Sciences, National Research Council, Commission On Geosciences, Environment, And Resources, Board On Earth Sciences And Resources, Committee On Geography, Workshop On Transportation Decision-Making: Place, Community, and Quality of Life, Beckmann Center, Irvine California, January 29, 2001

Theory and Practice in Geospatial Decision Support Education, Aurora Partnership Third Annual Meeting, Charleston, South Carolina, November 14, 2000.

Collaborative, Environmental Decision Making for Habitat Redevelopment, a facilitated hands-on decision simulation, Charles Simenstead's Wetlands Restoration Course – 2.5 hour session. Third year in a row for this activity as the students and instructor really enjoy the learning experience as it is conducted in the Geography Dept's Collaboratory, February 24, 2000.

Collaborative Decision Support for Habitat Redevelopment in the Duwamish Waterway of Seattle Washington : An Example of Local Political Restructuring, Kathryn Mitchell's Geography 100 Introduction to Human Geography, January 14, 2000.

Collaborative Decision Support for Habitat Redevelopment in the Duwamish Waterway of Seattle Washington : An Example of Local Political Restructuring, Michael Brown's Geography 100 Introduction to Human Geography, November 10, 1999.

Geographic Information Systems and Environmental Modeling, U of Washington, Computer Science Dept., March 12, 1999.

Geographic Information Systems for Group Decision Making, U of Washington, Computer Science Dept., March 7, 1999.

Geographic Information Systems for Risk Evaluation: Applications for Environmental Health, Water Quality Technology Conference, November, 4, 1998. San Diego, CA.

Geographic Information Systems for Risk Evaluation, National Center for Geographic Information and Analysis, workshop on GIS and Risk, State University of New York at Buffalo, September, 6-10, 1997.

Enhanced Adaptive Structuration Theory: A Theory of GIS-supported Collaborative Decision Making, National Center for Statistics and Environment, U of Washington, February 18, 1997.

Geographic Information Systems for Risk Evaluation: Perspectives on Applications to Human and Ecological Impacts, Society for Risk Analysis, New Orleans, LA, December 12, 1997.

Spatial Group Choice for Collaborative Decision Making and Empirical Research on GIS Use, Department of Rural Surveying, Swiss Federal Institute of Technology, Lausanne, Switzerland, November 13, 1997.

Spatial Database Integration, Department of Rural Surveying, Swiss Federal Institute of Technology, Lausanne, Switzerland, November 11, 1997.

Transportation Information Management, Department of Rural Surveying, Swiss Federal Institute of Technology, Lausanne, Switzerland, November 5, 1997.

GIS Implementation and Empirical Research, Department of Rural Surveying, Swiss Federal Institute of Technology, Lausanne, Switzerland, November 1, 1997.

GIS and Growth Management, Department of Rural Surveying, Swiss Federal Institute of Technology, Lausanne, Switzerland, October 24, 1997.

Spatial Decision Making Using GIS as Senior Scholar at the 1996 International Young Scholars Summer Institute in Geographic Information, National Science Foundation, European Science Foundation, Berlin, Germany, July 24- Aug 1, 1996.

GIS for Risk Evaluation at Hanford. Environmental Radiation Study Committee, University of Washington, May 14, 1996.

GIS for Risk Evaluation. Department of Environmental Health Seminar Series, University of Washington, March 7, 1996.

GIS for Risk Evaluation. Continuing Education Course Workshop Series, Department of Environmental Health, Urban Horticulture Center, University of Washington, February 23, 1996.

GIS for Public Health. Continuing Education Course Workshop Series, Department of Environmental Health, Urban Horticulture Center, University of Washington, November 17, 1995.

GIS for Collaborative Spatial Decision Support. Environmental Seminar Series, Graduate School of Public Affairs, University of Washington, October 19, 1995.

Collaborative Spatial Decision Making, Dept of Geography, University of Washington, Colloquium Series, October 13, 1995.

Position Paper on Task Models for Collaborative Spatial Decision Making, as a member of the Steering Committee, NCGIA Specialist Meeting I-17, September 18-20, 1995.

Learning How To Learn With Life-Long Learning Skills, Phi Beta Kappa Graduation Reception, University of Washington, June 9, 1995.

GIS Support for Collaborative Management of Highway Stormwater Runoff, invited lecture in the Dept of Geography, The University of Iowa, Iowa City, Iowa, April 28, 1994.

Design Considerations for Geographic Information Systems for Transportation, AAG Meeting, Atlanta, GA, April 7, 1993.

Group Decision Support for Habitat Development, URISA/ASPRS Meeting, Portland, OR, March 30, 1993.



A View of the National Spatial Data Infrastructure, position paper invited for the Experts Meeting on the National Spatial Data Infrastructure, Federal Geographic Data Committee, Charleston, SC, February 19, 1993.

Conceptual Basis for a Cognitive Theory of Geographic Information Use, Paper Session on Cognitive Issues in GIS, AAG Meeting, San Diego, CA, April 17, 1992.

Meeting the Need for GIS Education at the University of Washington, Fall meeting of the Northwest Computer-Aided Mapping Association, November 13, 1991, Seattle, Washington.

GIS for Transportation Planning, as part of Workshop on Spreadsheet, Databases and GIS, sponsored by Lincoln Institute for Land Policy, Cambridge MA, November 1, 1991, held at Stouffer Madison Hotel, Seattle, Washington.

An Overview of GIS for Environmental Modeling First International Conference/Workshop on Integration of Geographic Information Systems and Environmental Modeling, sponsored by National Center for Geographic Information and Analysis, and several Federal agencies including the U. S. EPA, U. S. Dept of Interior/Geological Survey, Dept of Energy/Oak Ridge, Dept of Fish and Wildlife plus several others, Boulder, CO, September, 15-19, 1991.

Thinking with Geographic Information: Requirements for GIS User Interfaces, invited paper, National Center for Geographic Information and Analysis Initiative 13 Specialist Meeting, Human Computer Interaction, June 21-26, 1991, Buffalo, New York.

Interjurisdictional Concurrency in Growth Management: A Tough Challenge for GIS-T, Spring meeting of Northwest Computer-Aided Mapping Association, Sea-Tac, June 4, 1991.

Thinking with Geographic Information: Forming Mental Models of the World, Department of Geography, UC Santa Barbara, May 16, 1991.

Thinking, Cognition and Geographic Information, Panel on User Interface Solutions for GIS, Meetings of AAG, Miami, FL, April 15, 1991

Directions and Issues in the Future of GIS, Third North Carolina GIS Conference, Raleigh, NC, January 11, 1991.

Data Standards for Cartography and GIS, for Workshop on Understanding Database Design, sponsored by University of Wisconsin-Madison, Department of Professional Development, May 22, 1990.

Suitable Representation Schemes for Geographic Information Abstraction in Map Generalization, for Symposium Towards a Rule Base for Map Generalization, sponsored by National Center for Geographic Information and Analysis and Syracuse University, April 15-18, 1990. Same paper presented at AAG Toronto Meetings, April 20, 1990.

Development of a State-wide Transportation Network from TIGER/Line Files Transportation Research Board, Subcommittee on GIS in Transportation, Washington, D. C. January 8, 1990.

Design Considerations for GIS for Transportation Modeling, Transportation Modeling Interest Group Meeting 2, sponsored by FHWA and WSDOT, October 17, 1989.

Instructional Development in Cartography and GIS at the University of Washington, GIS in Higher Education, Second Annual Meeting, sponsored by the International Geographical Union Commission on GIS and the Ohio State University Department of Geography, June 11, 1989.

TIGER Tales of GIS for Transportation at the University of Washington, State Data Center Western Regional Conference, Seattle, Washington, June 7, 1989.

A Grammar for Cartographic Databases, Languages of Spatial Relations: Specialist Meeting for NCGIA Research Initiative 2 sponsored by the National Center for Geographic Information and Analysis, February 19-22, 1989.

An Integrated Curriculum in Cartography and GIS, Joint Meeting of the Washington State Mapping Advisory Committee and Northwest Computer-aided Mapping Association, Tacoma, WA, October 26, 1988.

Multipurpose Geographic Database Guidelines for Local Government, Joint Meeting of the Washington State Mapping Advisory Committee and Northwest Computer-aided Mapping Association, Tacoma, WA October 26, 1988.

Functionality in Geographic Information Systems for Transportation, Meetings of the Urban and Regional Information Systems Association, Los Angeles, CA, August 6, 1988.

A Framework for Curriculum Development in Cartography and GIS, GIS in University Education, sponsored by the IGU Commission on Data Processing and Sensing, The Ohio State University, April 30, 1988.

Digital Cartographic Data Standards, Computer-Assisted Cartography Conference, Western States Departments of Transportation sponsored by the Federal Highways Administration. Olympia Washington, September, 1987.

Getting Started in a Multipurpose Land Information System, Washington State Section of the American Congress on Surveying and Mapping, Ellensburg, Washington, September, 1987.

Assessing the State of Microcomputer Mapping and GIS, Northwest Computer-Aided Mapping Association Spring Quarterly Meeting, Seattle, Washington. April, 1987.

A Spatial Data Exchange Standard, National Committee for Digital Cartographic Data Standards, International Symposium on Computer- Assisted Cartography, Baltimore Maryland, April 2, 1987.

Developing the Northwest Computer-Aided Mapping Profession, Northwest Computer-Aided Mapping Association Fall Quarterly Meeting organizer - Developing the Northwest Computer-Aided Mapping Profession, University of Washington, November, 1986.

Current Status of the National Committee for Digital Cartographic Data Standards, American Congress on Surveying and Mapping Fall Technical Meetings, Anchorage, Alaska, September, 1986.

The Future of Land Information System Integration, Workshop on Modernizing Land Records Systems and Developing Multipurpose Land Information Systems, Center for Urban Studies, Portland State University, May, 1986, Portland, Oregon.

Computer Mapping at the University of Washington, State of Washington Mapping Advisory Committee and Northwest Computer- Aided Mapping Association , Washington Department of Natural Resources, April, 1986.

The State of Cartographic Information Systems, Geography Department, Portland State University, Portland, Oregon, January, 1986.

Panel Discussion on Data Interchange for Computer-Assisted Mapping, Northwest Computer-Aided Mapping Association, March, 1985

Issues in Digital Cartographic Data Standards, Northwest Computer-Aided Mapping Association, March, 1983.

Database Modeling in Distribution Facilities Management, Keystone V Conference, Keystone, Colorado, August 1982.

### **RESEARCH INTERESTS**

- Spatial Information Representation Theory in Sustainability Information Science
- CyberGIS Software Integration for Sustained Geospatial Innovation
- Spatial-temporal Modeling of Coastal Resilience
- Participatory Interaction Modeling of Online Geographic Decision Making
- Spatial-Temporal Modeling of Watershed Sustainability
- Large-scale geospatial data libraries for public decision support
- Collaborative Decision Support for Water Resources
- Collaborative Decision Support for Coastal Resilience
- GIS for Risk Evaluation and Decision Analysis
- Student learning outcomes within group projects with GIS
- Geographic information representation, human cognition, and user interfaces
- Land use, transportation, and environmental applications of GIS

### **GRANT/CONTRACT AWARDS**

July 1 2012 – June 30, 2015. Collaborative Geospatial Information Technologies at the Learning Frontier, Student Technology Fee Committee, \$131,000.

October 1, 2010 – September 30, 2015. CyberGIS Software Integration for Sustained Geospatial Innovation, Shaowen Wang (PI), Co-PI's Luc Anselin, Budhendra L. Bhaduri, Xuan Shi, Timothy L. Nyerges, Nancy R. Wilkins-Diehr, Office of Cyberinfrastructure, Software Institutes, Cross-Directorate Active Programs, Geography and Spatial Sciences, Method, Measure & Statistics, OCI-1047916, \$4.4M total, \$687,410 UW for 5 years.

June 1, 2011 – December 31, 2011. Geospatial Extension Program: Improving Community Well-being and Resiliency, Sean Ahearn and Tim Nyerges co-project leads, Department of Homeland Security contract with University Consortium for Geographic Information Science. Travel Support for convening 24 scholars and agency personnel. \$53,800.

October 1, 2009 – February 29, 2012 Participatory Interaction Modeling of Online Geographic Decision Making, Timothy Nyerges (PI), Robert Aguirre, Robert W. Aguirre, PLLC (CoPI), National Science Foundation, Geography and Spatial Sciences Program, BCS-0921688, \$215,001.

August 1, 2007 – July 31, 2010. Geospatial Decision Support Tools for Coastal Resource Management: Vulnerability Maps Characterizing Regional Climate Variability and Change Impacts, Timothy Nyerges (PI), Dawn Wright, Oregon State University (Co-PI), Robert Aguirre, Robert W. Aguirre, PLLC (Co-PI), National Oceanic and Atmospheric Administration, Climate Program, Project No. NA07OAR4310410, \$287,113. seeking no-cost extension

September 1, 2007 – August 31, 2008. T. Nyerges (PI) \$50,000 supplemental award, US/China Digital Government Collaboration: Comparing Water Resources Decision Support Situations, Techniques, and Tools, for An Internet Platform To Support Public Participation In Transportation Decision Making, National Science Foundation, Division Of Experimental & Integrative Activity,

Information Technology Research Program, Project Number EIA 0325916 managed by the Digital Government Program.

September 1, 2004 – August 31, 2009. Multi-Ethnic Study of Atherosclerosis (MESA) Air Pollution Study, Joel Kaufman (PI), Dept of Occupational and Environmental Health, University of Washington, funded by the Environmental Protection Agency, \$30,000,000, Tim Nyerges is senior scientist, and is supervising the Geography GIS graduate student responsible for GIS database design. \$35,000 per year.

September 1, 2003 – August 31, 2008, T. Nyerges, (PI), Co-PI's T. Brooks, C. Drew, G. Scott Rutherford, U Of Washington, P. Jankowski, San Diego State University, R. Young, University Of Wyoming. An Internet Platform To Support Public Participation In Transportation Decision Making, National Science Foundation, Division Of Experimental & Integrative Activity, Information Technology Research Program, Project Number EIA 0325916 managed by the Digital Government Program, \$2,682,828.

August 10, 2004 – August, 2005. T. Nyerges DBA as Geo Info Consulting, expert witness consulting about Transportation Delivery Routing for Hunton and Williams, LLP, Norfolk, VA.

April 5, 2004 – April 2005. T. Nyerges DBA as Geo Info Consulting, expert witness consulting about Internet GIS for Woodcock and Washburn, LLP, Philadelphia PA.

November 8, 2004 – December 15, 2004. Texas Higher Education Coordinating Board, Consultant to Committee on evaluating a proposed program of "Doctor of Philosophy in Geospatial Information Sciences" submitted by the School of Social Sciences, School of Natural Sciences and Mathematics, and Erik Jonsson School of Engineering and Computer Science.

March 31, 2003 – June 15, 2004, T. Nyerges, Information Technology for Student-directed Research Teams, Student Technology Fee Proposal Competition, University of Washington, \$17,000

September 15, 2002 – March 31, 2003. T. Nyerges, N. Chrisman, M. Yuan, GeoInfo Consulting, Critique and design of nationwide GIS-based Risk Models of Natural Hazards, Geotrac Inc., Norwalk Ohio. \$40,000.

August 1, 2001 – July 31, 2004. T. Nyerges, Co-PI, (P. Jankowski, PI) A Study of Geographic Information Technology Use in Collaborative Water Resource Planning. National Science Foundation, Nyerges subcontract is \$49,853. full amount is \$150,000.

June 16, 2001 – June 15, 2002. T. Nyerges PI. GIS for Sustainability Studies. UW College of Arts & Sciences Curriculum Development Award. \$20,000

September 16, 2000 - September 15, 2002. CRESPII - Consortium for Risk Evaluation with Stakeholder Participation, one of 25 members of research team, Charles Powers, Institute for Risk Management, PI, Elaine Faustman, University of Washington, CO-PI, U. S. Department of Energy, \$35,000/year my part of \$6,000,000 total.

June 1999 – June 2001. T. Nyerges, senior consultant and eventually co-PI, Transportation Planning Uses of Commercial Data, KJS Associates, Inc. Bellevue, WA, project involving product development grant, U. S. Dept of Transportation, Federal Highways Administration, Small Business Innovation Research. \$70,000 of \$500,000 project.

July 15, 1998 - July 15, 1999. Workshop Facilitation for Multidimensional, Multimodal Transportation Referencing, consultant to NCHRP 20-27 - 3, Teresa Adams, Dept Civil and Environmental Engineering, University of Wisconsin. \$1,500.

July 15, 1998 – December 15, 1998. Spatial Decision Support Learning Units, Geo Choice. Inc. for Institute for Aerospace Survey and Earth Sciences, Enschede, Netherlands. \$3,000.

April, 1998. T. Nyerges PI. Objectives and Outcomes Assessment: Portable Information Technology for Curriculum Enhancement. Funded by College of Arts & Sciences, \$3,000.

September 16, 1998 – September 15, 1999. Visualization of Uncertainty, National Research Center for Statistics and Environment, T. Nyerges and N. Hedley co-PI's., \$15,000.

1997. T. Drop-in Access to High-End Geographic Computing Equipment for Students in Department of Geography, University of Washington. Funded by University of Washington Student Tech Fee Committee, Nyerges PI, \$65,000

June 16, 1996 - June 15, 1998. Learning Skills for Undergraduate Education in Geography, as writing advisor to L. Jarosz, G. Krumme, J. Mayer, K. Mitchell co-PI's, National Science Foundation, Division of Undergraduate Education, Instrumentation and Laboratory Improvement Program, \$48,000.

March 15, 1996 - September 15, 1997. Equipment for Videotape Data Coding and Analysis, as supplement to Collaborative Spatial Decision Making Using Geographic Information Technology and Multicriteria Decision Models. T. Nyerges, PI, National Science Foundation, Social and Behavioral Sciences Division, Geography and Regional Science Program (\$8,000), with matching funds from the University of Washington (\$5,850).

September 16, 1995 - March 15, 2000. CRESP - Consortium for Risk Evaluation with Stakeholder Participation, one of 25 members of research team, Bernard Goldstein, Rutgers, PI, Elaine Faustman, University of Washington, CO-PI, U. S. Department of Energy, \$45,000/year my part, \$4,000,000 total.

June 16, 1995 - June 15, 1996. Electronic Library Resources for Upper-Division Undergraduate Geography Courses, G. Krumme, T. Nyerges and A. Zald, Allen Foundation, University of Washington, \$9,000.

January 15, 1995 - December 15, 1995. Collaborative Spatial Decision Making Supplement for Undergraduate Research. T. Nyerges, PI, National Science Foundation, Social and Behavioral Sciences Division, Geography and Regional Science Program, \$5,000

September 16, 1994 - September 15, 1998. Collaborative Spatial Decision Making Using Geographic Information Technology and Multicriteria Decision Models. T. Nyerges, PI, and P. Jankowski, CO-PI, National Science Foundation, Social and Behavioral Sciences Division, Geography and Regional Science Program, \$126,000 (UW part), co-PI with Piotr Jankowski, Geography, University of Idaho.

June 16, 1994 - June 15, 1996. Facilitating Collaborative Learning and Critical Thinking in a Geographic Information System Laboratory for Undergraduate Education. T. Nyerges, PI, N. Chrisman Co-PI, National Science Foundation, Division of Undergraduate Education, Instrumentation and Laboratory Improvement Program, \$50,000.

June 1, 1994 - December 31, 1996. D. Dailey (PI), M. Haselkorn (Co-PI), T. Nyerges (Co-PI), IVHS-Network and Data Fusion, Federal Highway Administration and Washington State Department of Transportation, Olympia, WA, my part 25,000/year \$246,00.

July 15, 1994 - July 15, 1995. Advanced Application Architectures for GIS-T, consultant to NCHRP 20-27 - 2, Alan Vonderohe, Dept Civil and Environmental Engineering, University of Wisconsin. \$10,000.

March 15, 1994 - August 15, 1995. Cognitive Aspects of Human-Computer Interaction in GIS, National Science Foundation, International Program, Collaborative Research Workshop, March 21-25, 1994, Spain, PI, \$19,986, supplemental award to NATO award.

January 1, 1994 - August 15, 1995. Cognitive Aspects of Human-Computer Interaction in GIS, NATO Scientific Programme, Advanced Research Workshop, March 21-25, 1994, Spain, PI, \$17,000.

June 9, 1993 - June 30, 1993. Digital Map Conversion Services: Intergraph IGDS to ESRI ARC/INFO, Puget Sound Regional Council. \$9,000.

July 1, 1991 - December 31, 1992. GIS for Environmental Superfund Cleanup of Commencement Bay, ATOCHEM North America. \$30,000.

July 1, 1991 - September 30, 1992. GIS for Transportation Planning, Washington State Department of Transportation; Planning, Research and Public Transportation Branch. \$49,700.

May-August, 1990. contract for assistance with GIS Strategic Implementation Plan Development, Washington State Department of Transportation; Geographic Services Branch. \$5,000.

June, 1989. Subcontract with Institute for Transportation Research and Education (ITRE), Research Triangle Park, North Carolina, to support North Carolina State Department of Transportation on issues involving State-wide Transportation GIS Design and Implementation. \$15,000.

February, 1989. TIGER File Evaluation, Washington State Department of Transportation, Washington Transportation Research Center, Principal Investigator, in conjunction with Bureau of Census JSA 88-28, \$10,000.

October, 1988. Joint Statistical Agreement 88-28, U S Bureau of the Census, University of Washington, Principal Investigator, TIGER File Demonstration Project for Transportation Analysis in Washington State, \$50,000.

October, 1987. Washington Transportation Research and Analysis Center, Washington Department of Transportation, Principal Investigator, Automating the Production of Collision Diagrams, \$30,500.

March, 1986. IBM Olympus Program, Principal Investigator, Supplement to Previous Award, \$13,000.

January, 1986. Digital Equipment Corporation, ISIS Program, Co-principal Investigator, Integrating Geo Data Processing, \$11,000.

September, 1986. Index Technology, Principal Investigator, Spatial Information System Design in Education, \$4,000.

December, 1985. IBM Olympus Program, Principal Investigator, Microcomputer Geographic Data Processing, \$28,000.

1985 -1991. Subcontract with Boeing Computer Services to support the State of Alaska Department of Transportation and Public Facilities with specification, design and implementation of geographic information systems in support of their highway analysis and georeferencing systems. \$100,000.

#### **EDITORIAL RESPONSIBILITIES**

2013 – 2014. Guest Editor. *International Journal of Geographic Information*, Special issue Coastal GIS

2011 – present. Editorial Board, *Journal of Urban and Regional Information Systems Association*

2006 – present. Editorial Board, *Journal of Intelligent Decision Technologies*

1997- 2012. Editorial Board, *International Journal of Geographic Information Science*

2006 - 2010. Editorial Board, Methods and Models, *Annals*, Association of American Geographers  
1996-1997. Editorial Board, *Journal of Geographic Information and Decision Analysis*.  
1991 – 1994. Editorial Board, *Cartography and Geographic Information Systems*.

Manuscript review

*Annals, Association of American Geographers*  
*Computers, Environment, and Urban Systems*  
*Journal of Environmental Management*  
*Risk Analysis*  
*Journal of the American Society for Information Science*  
*Collaborative Geographic Information Systems*  
*Environment and Planning A*  
*Environment and Planning B*  
*Encyclopedia of Digital Government*  
*Cartography and Geographic Information Systems*  
*Field Methods*  
*International Journal of Geographic Information Science*  
*International Journal of Geographic Systems*  
*Journal of Urban and Regional Information Systems Association*  
*Photogrammetric Engineering and Remote Sensing*  
*Society of Natural Resources*  
*Transactions in GIS*

Book prospectus review

Sage  
John Wiley  
ESRI Press

Research proposal review

National Science Foundation, Social and Behavioral Science Directorate, Geography and Regional Science Program; Methodology, Measurement, and Statistics Program and Decision, Risk and Management Sciences Program, Engineering Directorate, Metropolitan Research Center for Transportation, Geophysical Science Program, Division of Undergraduate Education; Computer and Information Sciences and Engineering Directorate, National Science Foundation, Methodology, Measurement and Statistics Program; UW Royalty Research Fund, National Science Foundation, Presidential Young Investigators Review, UW Dentistry Research, Geoide Canada

**MEETINGS/SESSIONS ORGANIZED**

CyberGIS '13: NSF CyberGIS Project All Hands Meeting, Shaowen Wang and Tim Nyerges CoChair organizers. University of Washington, September 15-17, Seattle, Washington.  
<http://www.cigi.illinois.edu/cybergis13/>

Sustainability Learning Communities Network Workshop, University Consortium for Geographic Information Science, George Mason University, May 20, 2013.

CyberGIS and Sustainability Science, one paper session and one panel session, Association of American Geographers Annual Meeting, Los Angeles, April 10-12, 2013.

CyberGIS '12: First International Conference on Space., Time and CyberGIS. Shaowen Wang, Chair, Michael Goodchild, Honorary Chair, Timothy Nyerges, CoChair organizers. University of Illinois, Urbana-Champaign, August 6-10, 2012, Urbana-Champaign, Illinois.  
<http://www.cigi.illinois.edu/cybergis12/>

Geospatial Extension Program: Improving Community Well-being and Resiliency, Sean Ahearn and Tim Nyerges co-project leads, Department of Homeland Security, September 19, 2011; November 3, 2011, University Consortium for Geographic Information Science. Travel Support for convening 24 scholars and agency personnel.

GIS for Livable and Sustainable Communities, University Consortium for Geographic Information Science and Transportation Research Board Committee on GIS, National Academy of Sciences, Washington DC, May 5-6, 2011.

President, Co-Organizer, Place-based Geospatial Summit, University Consortium for Geographic Information Science February 3-4, 2011, Washington DC.

CyberGIS Workshop, Integration Requirements Analysis, February 2, 2011, Washington, DC.

President, Co-Organizer, Place-based Policy and Analysis, University Consortium for Geographic Information Science February 4-5, 2010, Washington, DC.

President-elect, Program Organizer, GIScience and Transportation, University Consortium for Geographic Information Science February 5-6, 2009, Washington DC.

Research Committee Chair, Program Organizer, University Consortium for Geographic Information Science 2008 Winter Meeting, Cyberinfrastructure, February 7-8, 2008, Washington DC.

Research Committee Chair, Program Organizer, University Consortium for Geographic Information Science 2007 Summer Assembly, Global Change, June 26-29, 2007, Yellowstone, Wyoming.

Research Committee Chair, Program Organizer, University Consortium for Geographic Information Science 2006 Summer Assembly, June 28-July 1, 2006, Vancouver WA.

Organizer of Six Sessions at 2006 AAG Annual Meeting, Chicago  
Indigenous Geographic Information Science and Systems - I  
Indigenous Geographic Information Science and Systems - II  
Conceptualizing Participatory GIS Activities  
Diverse Representations of Geographic Information  
with Matthew W. Wilson, The Politics of Participatory GIS – I  
with Kevin Ramsey, The Politics of Participatory GIS – II

Program Committee Chair, URISA Public Participation Geographic Information Systems Conference, Cleveland OH July 29- August 2, 2005.

Research Committee Chair, Program Organizer, University Consortium for Geographic Information Science 2005 Summer Assembly, June 28-July 1, 2005, Jackson Hole Wyoming.

Organizer and chair, Panel Session, Foundations and Prospects for Participatory Geographic Information Sciences, Annual Meetings of the Association of American Geographers, Denver CO, April 9, 2005.

Chair, Paper Session, Emerging Themes in GIS, Annual Meetings of the Association of American Geographers, Denver CO, April 8, 2005.

Co-Organizer and chair, Participatory GIS Design and Evaluation, Annual Meetings of the Association of American Geographers, Philadelphia, PA March 15-19, 2004.

Organizer and chair, Design and Evaluation of PGIS for Collaborative Water Resource Planning, 2<sup>nd</sup> Annual Public Participation in GIS Meeting, URISA, Portland OR, July 20-22, 2003.



Organizer and chair, Fleming Lecture, Annual Meeting of Association of American Geographers, Honolulu, Hawaii, March 24, 1999.

Organizer, and chair, GIS and Risk Assessment, Society for Risk Analysis, Washington, D. C., December 11-13, 1997.

Organizer, and co-chair, GIS and Risk Assessment, Association of American Geographers, Ft. Worth, TX April 1-6, 1997.

Steering Committee, Specialist Meeting for Initiative 17, Collaborative Spatial Decision Making, National Center for Geographic Information and Analysis, Santa Barbara, CA, September 17-21, 1995.

Director, NATO Advanced Research Workshop, Cognitive Aspects of Human-Computer Interaction for GIS, Mallorca, Spain, March 21-25, 1994.

Paper Session Co-organized with Shi-Lung Shaw, GIS for Transportation, AAG Meeting, Miami, FL, 1991.

Organizer and chair, panel discussion on GIS and Geographic Modeling, Annual AAG Meeting, Toronto, Canada, April, 1990.

Organizer and chair, panel discussion on Model Curriculum Development for GIS in University Education, Auto-Carto 9, Baltimore, MD, April, 4, 1989.

Organizer and chair, Northwest International Forum on GIS Research and Teaching, Friday Harbor, Washington, October 27-29, 1988.

Organizer and chair, A Framework for Data Sharing in a Multipurpose Land Information System Network, Northwest Computer-aided Mapping Association in cooperation with the Washington State Mapping Advisory Committee, October 26, 1988.

Organizer and chair, Developing the Northwest Computer-aided Mapping Profession, sponsored by the Northwest Computer-aided Mapping Association, University of Washington, November 12, 1986.

## **COURSES TAUGHT**

at the Ohio State University:

Introduction to Economic Geography

at the University of Washington (\* currently taught in rotation):

\*Coastal Geographic Information Systems

\*Geographic Information Systems Workshop

\*Research Seminar: Foundations of Sustainability Information Science

\*Geographic Information Systems Problem Solving

\*Geographic Information Systems Data Management

Geographic Information Systems and Decision Support

Principles of GIS Mapping

GIS Database Programming

Introduction to Computer Cartography

Computer Cartographics / Analytical Cartography

Urban Geographic Information Systems

GIS-based Decision Support

Multipurpose Land Information Systems

Geographic Information Systems Management

Research Seminar: Knowledge Representation  
 Research Seminar in Geographic Information Representation  
 Expert Systems and Geographic Information  
 Geographic Information Systems for Risk Evaluation  
 Geography Tutorial for Majors  
 Geography Honors Tutorial  
 Analytic Cartography: Internet GIS Programming  
 Geographic Information Systems Analysis

### **NATIONAL PROFESSIONAL ORGANIZATIONS AND COMMITTEES**

2/11 –12/13. member, National Geospatial Advisory Committee, appointment by the Secretary of the US Department of Interior.  
 2/11 – present, Immediate Past President (reappointed 2012-2014), University Consortium of Geographic Information Science  
 2/09 – 2/11, President, University Consortium of Geographic Information Science  
 2/08 – 2/09, President-Elect, University Consortium of Geographic Information Science  
 3/05 – 2/08, Research Chair, University Consortium of Geographic Information Science  
 4/05 – 3/06, Past Chair, GIS Specialty Group, Association of American Geographers  
 3/04 –4/05, Chair, GIS Specialty Group, Association of American Geographers  
 4/03 –3/04, Vice Chair, GIS Specialty Group, Association of American Geographers  
 2/02 – 2/03 appointed as member, Committee to Review Geographic Information Systems Research and Applications at HUD: Current Programs and Future Prospects, appointment through National Research Council, Board on Earth Sciences and Resources, Committee on Geography  
 5/01 Panel Review National Science Foundation Information Technology Research Initiative, Washington D. C.  
 9/98-present, Technical Advisor, Thornton Creek Project, Educational Committee, City of Seattle Public Schools.  
 8/98 Panel Review, National Science Foundation Knowledge and Distributed Intelligence, Washington D. C.  
 11/97 Panel Review, National Science Foundation Division of Undergraduate Education, Instrumentation and Laboratory Improvement, Washington, D. C.  
 11/95 Panel Review, National Science Foundation Division of Undergraduate Education, Instrumentation and Laboratory Improvement, Washington, D. C.  
 11/94 - 5/95 advisor, Puget Sound Regional Council, Technical Advisory Committee Transportation Emissions and Geographic Information Systems.  
 7/92 - 3/93. advisor to U. S. Federal Geographic Data Committee for National Spatial Data Infrastructure. Meeting, Spring 1993.  
 9/92 - 10/92. Strategic Planning Sessions. Washington Geographic Information Council.  
 4/91 - 4/94. Board of Directors, Transportation Specialty Group, AAG.  
 4/91 - 4/92. Treasurer and Academic Councilor, GIS Specialty Group, AAG.  
 1/90 - Present. Member, Subcommittee on GIS in Transportation, Subcommittee of TRB Committee on Transportation Data and Information Systems.  
 1989-1990. Member, GIS Strategy Committee, American Cartographic Association, American Congress on Surveying and Mapping.  
 4/89 - present Standards Work Group. Washington Geographic Information Council.  
 1986-1989. Curriculum Chairman, AAG GIS Specialty Group.  
 1987-1989. Ad hoc Committee on Model Curriculum Development, Cartography and Information Systems, American Congress on Surveying and Mapping, American Cartographic Association.  
 1985-1990. Board of Directors, Northwest Computer-Aided Mapping Association.  
 9/85-9/89. Advisory Member, Washington State Mapping Advisory Committee, Chaired by Department of Natural Resources.  
 8/87 - 4/88. Database Standards for Local Government, Joint Committee on Geographic Information Management Systems, American Congress on Surveying and Mapping and American Society of Photogrammetry and Remote Sensing.

- 3/87 - 3/88. Advisory Member, Task Force on National Digital Cartographic Data Standards, U. S. Geological Survey.
- 1986-87. Board of Directors, American Cartographic Association Division, American Congress on Surveying and Mapping.
- 6/82 - 3/87. Chairman, Technical Working Group on Data Organization, National Committee for Digital Cartographic Data Standards.
- 3/82 - 3/87. Steering Committee, National Committee for Digital Cartographic Data Standards.

### **UNIVERSITY COMMITTEES**

- 02/10-present. Washington State Geospatial Data Archive (WAGDA) Enhancement, University of Washington Geospatial Information Consortium.
- 9/07-12/07. Review Committee of Graduate Certificate Program in Environmental Management
- 09/06 – present. Advisory Board, UW Certificate Program in Tsunami Science, UW Extension and Summer School.
- 09/04 – present. Advisory Board, UW Certificate Program in GIS, UW Extension and Summer School.
- 9/95 – present. Interdisciplinary Ph.D. Program in Planning
- 9/00 – 6/03. Board of Directors, Program on Environment
- 03/02 - 6/02. Ad Hoc Committee for Program Assessment, Program on the Environment
- 1/01 – 3/01. Ad Hoc Working Group on Capstone Review, Program on the Environment
- 6/00 – 6/02. Washington State Ad hoc Working Group on Assessment of Information and Technological Literacy.
- 9/95 - 6/96. Faculty Senate voting member (via Faculty Council on Educational Technology)
- 9/95 - 6/96. Faculty Senate Executive Committee, Ex Officio. (via Faculty Council on Educational Technology)
- 9/95- 6/96. Member, Provost's Ad hoc Committee on Educational Technology and Distance Learning.
- 9/95 - 6/96. Chair, Faculty Council on Educational Technology.
- 9/94 – 8/97. Member, Faculty Council on Educational Technology.
- 9/94 - 5/95. College of Arts and Sciences, Search Committee for Chair, Geography Department.
- 4/93 - 9/94. Member, State Environmental Protection Advisory Committee.
- 4/93 - 7/93 Ad hoc Committee for Expansion of Recreational Sports Facilities
- 9/91 - 6/94. Member, Faculty Council for University Facilities and Services.
- 9/91 – 8/96. Director, Governing Board, Center for Social Science Computation and Research. College of Arts and Sciences.
- 9/90 - 6/91: Faculty Search Committee for GIS Faculty - Civil Engineering.

### **GEOGRAPHY DEPARTMENT COMMITTEES**

- 3/09 – present. Director, Professional Masters Program in GIS for Sustainability Management
- 9/11 – present. Technology Coordinator
- 9/07 – 9/08. Executive Committee
- 9/06 – 9/07. Technology Coordinator
- 9/05 – 4/06. Chair, Search Committee, Geographic Information Science faculty position
- 7/03 – 9/07. Graduate Program Coordinator and Chair of Graduate Committee
- 4/03 – 3/04. Executive Committee
- 9/01 – 9/03. Graduate Admissions Committee, Member
- 9/00 – 9/01. Undergraduate Research Symposium Committee, Chair
- 9/99 – 9/00. Undergraduate Research Symposium Committee, Member
- 9/98 – 9/00. Undergraduate Program Coordinator
- 9/98 – 9/00. Chair, Undergraduate Curriculum Committee
- 9/98 – 8/99. Geography Undergraduate Honors Coordinator
- 9/98 – 6/99. Technology TA Coordinator
- 9/97 – 6/98. Graduate Admissions Committee
- 9/97 – 9/98. Chair, Space and Information Technology Committee
- 9/97 – 12/97. Geography Executive Committee
- 9/96 - 6/97. sabbatical year

5/95 - 3/96. Member, Executive Committee.  
 9/94 - 6/96. Co-Chair, Geography and Library Ad hoc Working Group.  
 9/93 - 6/96. Member, Library Committee.  
 9/93 - 6/95. Member, Program Development Committee.  
 9/91 - 8/96. Chair, Departmental Information Technologies Committee.  
 1/91 - 1/92. Member, Executive Committee.  
 9/90 - 9/91. Program Development Committee.  
 9/85 - 9/91. Computer and Information Services Advisory Committee.  
 9/86 - 6/88. Graduate Admissions Committee.

**OHIO STATE UNIVERSITY AND DEPARTMENT COMMITTEES**

3/79 - 6/80. Internal Curriculum Review Committee, Graduate Student Representative, Department of Geography, Ohio State University.  
 9/79 - 6/80. Graduate Student Representative-at-Large to Advisory Committee on Computing September.  
 1/80 - 6/80. Graduate Student Representative to Internal Curriculum Review Committee on Cartography, Department of Geography, Ohio State University.  
 1/77 - 8/79. Department of Geography Representative to the Council of Graduate Students, Ohio State University.

**COMMUNITY SERVICE**

5/13 - present. Regional Open Space Strategies, Puget Sound Regional Council  
 9/04 - 9/07. GreenHeart Project, GIS Technical Advisory Committee  
 9/03 - 12/05. Homewaters Project, GIS Advisory Committee  
 9/98 - 8/03 Thornton Creek Project, GIS Advisory Committee

**PROMOTION REVIEW COMMITTEES - INTERNAL REVIEW/EVALUATION**

Sarah Elwood, tenure and promotion to associate professor  
 Michael Brown, tenure and promotion to full professor  
 Kam Wing Chan, third-year review  
 Kam Wing Chan, tenure and promotion to associate professor  
 Lucy Jarosz, third-year review  
 Lucy Jarosz, tenure and promotion to associate professor  
 Kam Wing Chan, tenure and promotion to full professor  
 Suzanne Davies-Withers, third year review  
 Michael Brown, tenure and promotion to associate professor

**PROGRAM REVIEW - EXTERNAL EVALUATION**

05/2012 Program Review, Department of International Development, Community, and Environment, Clark University.

**PROMOTION REVIEW - EXTERNAL EVALUATION**

09/2011 Thomas Cova, University of Utah, Department of Geography, promotion to full professor  
 08/2011 Elizabeth Wentz, Arizona State University, School of Geographical Sciences and Urban Planning, promotion to full professor  
 01/2011 Muki Haklay, University College London, promotion to full professor  
 12/2009 Hassan Karimi, University of Pittsburgh, Information Sciences, promotion to full professor.  
 10/2009 Kevin Curtin, George Mason University, Department of Geography and Geoinformation Science, promotion and tenure to associate professor  
 09/2009 Kathleen Stewart, University of Iowa, Department of Geography, tenure and promotion to associate professor.  
 09/2009 Steven Prager, University of Wyoming, Department of Geography, tenure and promotion to associate professor.  
 10/2008 Raj Sengupta, McGill University, Department of Geography and School of Environment, tenure and promotion

- 08/2008 Keiron Bailey, University of Arizona, Department of Geography and Regional Development, tenure and promotion to associate professor.
- 01/2008 Richard Kingston, University of Manchester, School of Environment and Development, promotion to senior lecturer
- 08/2007 Robert Edsall, Arizona State University, School of Geographical Sciences, tenure and promotion to associate professor
- 09/2006 Jacek Malczewski, University of Western Ontario, Social Science Centre, promotion and tenure
- 05/2006 David Mark, State University of New York – Buffalo, Department of Geography, promotion to Distinguished Professor
- 10/2005 Suzana Dragicevic, Simon Fraser University, Department of Geography, tenure and promotion review
- 09/2005 Helen Couclelis, Dept of Geography, University of California, Santa Barbara, senior step professor
- 09/2005 Laxmi Ramasubranian, City University of New York, Dept of Architecture and City Planning, Hunter College, tenure review as associate professor
- 05/2005 Martin Bunch, York University, Faculty of Environmental Studies, promotion and tenure
- 01/2005 Laxmi Ramasubranian, City University of New York, Dept of Architecture and City Planning, Hunter College, promotion review to associate professor
- 09/2004 Renee Reitsma, Department of Accounting, Finance, and Information Management, Oregon State University, tenure and promotion review to associate professor
- 09/2004 Phaedon Kyriakidis, University of California, Santa Barbara, Dept of Geography, tenure and promotion review to associate professor
- 02/2003 Daniel Sui, Dept of Geography, Texas A&M University, support letter for University Distinguished Achievement Award
- 09/2001 Thomas Cova, Dept of Geography, U of Utah, third year review
- 09/2001 Daniel Montello, Dept of Geography, U C Santa Barbara, promotion to full professor
- 09/2000 Daniel Sui, Texas Dept of Geography, A & M University, promotion to full professor
- 09/1996 Daniel Montello, Dept of Geography, U C Santa Barbara, tenure and promotion to associate professor
- 09/1995 Harvey Miller, Dept of Geography, U of Utah, tenure and promotion to associate professor

### **MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS**

- Association of American Geographers
- GIS Specialty Group
  - Cartography Specialty Group
  - Coastal Specialty Group
  - Hazards Specialty Group
  - Water Resources Specialty Group
- Association for Computing Machinery
- Special Interest Group on Computer-Human Interaction
- Urban and Regional Information Systems Association

### **SCHOLARSHIP AWARDS**

Keuffel and Esser Fellowship in Surveying and Cartography awarded by American Congress on Surveying and Mapping, 1979.

C. C. Huntington Memorial Award for outstanding graduate student performance awarded by Dept of Geography, Ohio State University, 1980.

William Evans Fellowship Award, visiting professor, University of Otago, New Zealand, March – April 2011.

### **GRADUATE STUDENT ADVISING**

*Graduated Masters - graduation date:*

Robert Ruderman, Committee Member - 1987.  
John Griffith, Committee Member - 1987.  
Corwin Crawford, Committee Member - 1987.  
Ken Herrell, Committee Chair - 1987.  
Tom Nolan, Committee Chair - 1988.  
Jerome Corr, Committee Member - 1988.  
Steve Larson, Committee Member - 1988.  
Lawrence Blain, Civil Engr., Committee Member - 1989.  
George Horning, Committee Chair - 1990.  
Frank Matulich, Committee Chair - 1990.  
Philip Condit, Committee Chair - 1990.  
William Albert, Committee Chair - 1990.  
Thomas Edwards, Committee Member - 1991.  
Marcus Lester, Committee Member - 1991.  
Trudy Suchan, Committee Member - 1991.  
Carrie Anderson, Committee Chair - 1991.  
Ernest Moore, Committee Member - 1992.  
John Nachman, Committee Member - 1992.  
Eric Folke, Civil Engr, Committee Member - 1992.  
Eric Issac, Civil Engr, Committee Member - 1992  
Nicole Devine, Committee Member - 1993  
Craig Dalby, Committee Member - 1993  
Are Bjordahl, Committee Member - 1994  
Charlie Hendricksen, Committee Chair - 1994  
Stacy Birk, Committee Chair - 1995  
Aaron Gill, Committee Chair - 1995  
Jeffrey Miller, Committee Chair - 1995  
Matthew Barry, Committee Chair - 1996  
Susan Grigsby, Committee Chair - 1996  
Richard Moore, Committee Chair - 1996  
Robert Norheim, Committee Member - 1996  
Marcie Compton, Committee Member - 1997  
Chris Davis, Committee Member – 1998  
Sam Adams, Committee Chair - 1999  
Daniel Reyes, Committee Member – 2000  
Sharon Hou, Committee Member - 2000  
Shaun McMullin, Committee Member – 2000  
Walter Svekla, Committee Chair - 2000  
Non Khunchumboo, Architecture, Committee Member – 2000  
Joshua Newell, Committee Member – 2002  
Kevin Ramsey, Committee Chair - 2004  
Randy Boshart, Civil and Environmental Engineering, Committee Member - 2005  
Matthew Wilson, Committee Chair – 2005  
Cale Berkey, Committee Chair - 2006  
Michalis Avraam, Committee Chair - 2007  
David Moore, Committee Member - 2007  
Zhong Wang, Committee Chair - 2008  
Jonathan Lesesne, Epidemiology, Committee Member - 2010  
Fogle, Robert J, Committee Chair - 2012  
Gardner, Benjamin B, Committee Chair - 2012  
Gould, Elizabeth R, Committee Chair - 2012  
Heffron, Matthew P, Committee Chair - 2012  
Jumawan, Krystle U, Committee Chair - 2012  
Karr, Jason Franklin, Committee Chair - 2012

Klock, Angela M, Committee Chair - 2012  
 Krogh, David James, Committee Chair - 2012  
 Thornquist, Brian, Committee Chair - 2012  
 Vo, Vu Tich, Committee Chair - 2012  
 Weber, Katherine A, Committee Chair - 2012

*Graduated Ph.D. - graduation date:*

Piotr Jankowski, Committee Member - 1989.  
 Gail Langran, Committee Member - 1989.  
 Oshinowo Babatunde, Civil Engineering, GFR - 1990.  
 Yihua Xiong, Civil Engineering, GFR - 1992.  
 Erh-Chun Yeh, Electrical Engineering GFR - 1994.  
 Lik Meng Lee, Urban Design and Planning, Committee Member - 1995.  
 Heidi Burgdeil, Mathematics, GFR - 1995  
 Dan Karnes, Committee Member - 1995  
 Francis Harvey, Committee Member - 1996  
 Edward McCormack, Committee Chair - 1997  
 Loren Siebert, Urban Design and Planning, GFR - 1997  
 Mark Huyler, Committee Member - 1997  
 Ric Vrana, Committee Member - 1997  
 Ivan Suen, Urban Design and Planning, GSR – 1998  
 Christina Drew, Committee Chair - 2002  
 Charles Hendricksen, Committee Chair - 2002  
 Nicholas Hedley, Committee Chair - 2003  
 Karin Johnson, Committee Member – 2003  
 James Peet, Committee Chair - 2003  
 Jacqueline Starr, Public Health and Community Medicine – Epidemiology, GSR - 2003  
 Scott Miles, Committee Chair - 2004  
 Kai Elgethun, Epidimeology, Committee Member – 2004  
 Enru Wang, Committee Member - 2005  
 Ruth Fruland, Education, Committee Member - 2006  
 Robert Crampton, Occupational and Environmental Health, Committee Member - 2007  
 Jie Wu, Committee Chair – 2007  
 Guirong Zhou, Committee Chair - 2008  
 Michael Lowry – Committee Member, Civil and Environmental Engineering - 2008  
 Kevin Ramsey, Committee Chair - 2009  
 Matthew Wilson, Committee Chair - 2009  
 Natalia Larios Delgado, Computer Science and Engineering, GSR - 2010  
 Michalis Avraam, Committee Chair - 2011  
 Emad Dawas, UDP Interdisciplinary, Committee Member - 2011

*In progress Masters:*

Bonfiglio, Christopher, Committee Chair - 2013  
 Bowler, John R, Committee Chair - 2013  
 Goldsmith, James, Committee Chair - 2013  
 Kramer, Kory, Committee Chair - 2013  
 Lund, Gregory, Committee Chair - 2013  
 McAuslan, Donald, Committee Chair - 2013  
 Palmer, Bryan, Committee Chair - 2013  
 Stcherbinine, Scott, Committee Chair - 2013  
 Tanahara, Alyssa, Committee Chair - 2013  
 Eckhardt, Nicolas T, Committee Chair - 2013  
 Hollatz, Richard, Committee Chair - 2013  
 Johnstonbaugh, Elizabeth, Committee Chair - 2013

Perkins, Joel, Committee Chair - 2013  
Clinton, Christopher, Committee Chair - 2013  
Dong, Jeffrey, Committee Chair - 2013  
Gardner, Chris, Committee Chair - 2013  
Novak, Grant, Committee Chair - 2013  
Price, Ian, Committee Chair - 2013  
Schmitz, David, Committee Chair - 2013  
Teut, Nathan, Committee Chair - 2013  
Timbers, Samuel, Committee Chair - 2013  
Walker, Jonathan, Committee Chair - 2013

*In progress Ph.D.:*

Eugene Martin, Committee Chair  
Mary Roderick, UDP Interdisciplinary Program, Committee Member  
Wilawan Thanatemaneeerat, Committee Chair  
Mu-Ning Wang, School of Forest Resources, Committee Member