



Nyerges, Timothy (1951-)nyerges timothy 1951

Timothy L. Nyerges, professor of geography at the University of Washington, has published numerous influential works on schema integration for spatial databases, information structuring in the analytical use of maps, typologies of geographic information abstractions, the uses of GIS in transportation planning, the prospect for public participation in GIS use, data-gathering strategies in the study of participatory GIS use, and the design of a Web-based PPGIS (Public Participation GIS).

Nyerges received his PhD from Ohio State University in 1980 under the supervision of Harold Moellering (known for research about animated, analytical cartography, and digital cartographic data standards) and Reginald Golledge (University of California, Santa Barbara, known for research in cognitive and behavioral geography). His dissertation, titled *Modeling the Structure of Cartographic Information for Query Processing*, represented innovative research in the structure of spatial data just as the GIS industry was taking off.

On finishing his PhD, Nyerges worked for 5 years as a computer-cartographer and GIS consultant, eventually moving to the Seattle area in 1983. While a consultant, he served as chair of the Technical Working Group on Data Organization, part of the National Committee for Digital Cartographic Data Standards, a position he held until 1987. He has remained an active advisor at the national level in the area of spatial data standards.

Since 1985, Nyerges has been a member of the faculty in the department of geography at the University of Washington in Seattle, where he has completed research in collaborative spatial decision support systems funded by the National Science Foundation, Environmental Protection Agency, and the Department of Energy. He has also shepherded the undergraduate and graduate GIScience curriculum and served on nearly 50 master's student committees and nearly 30 PhD student committees. He has also served as the director of the governing board for the university's Center for Social Science Computation and Research (1991–1996) and as a board member for the Program on Environment (2000–2003).

Nyerges is an affiliate faculty member at the Center for Water and Watershed Studies in the College of Forest Resources, in Civil and Environmental Engineering, and in the Interdisciplinary PhD Program in Urban Planning and Design. Nationally, he has served as the research chair and program organizer (2005–2008) for the University Consortium of Geographic Information Science summer meetings and the 2005 Urban and Regional Information Systems Association's Public Participation GIS conference, and he is the 2009–2011 president of the University Consortium for Geographic Information Science.

Participating in the GIS and Society debates of the mid 1990s, with his involvement in the Friday Harbor, Washington, meetings, Nyerges has continued to advance a research agenda on the study of GIS use. His work with Piotr Jankowski (a former student of Nyerges) has led to the development of thorough research designs in the study of GIS use in group decision-making situations, what Nyerges and Jankowski termed *enhanced adaptive structuration theory*. Jan-kowski and Nyerges ground their thinking about social-behavioral research on spatial decision making, which framed later studies of GIS use for transportation, land use, and water resource decision making.

His recent research has included a 4-year NSF (National Science Foundation) project concerning participatory GIS for transportation, which funded more than 15 graduate students from 2003 to 2007 at the University of Washington, San Diego State University, and the University of Wyoming. The research team, with Nyerges as principal investigator, designed and implemented an Internet platform to support and study public participation in transportation decision making. Nyerges continues to extend this research in the development and study of Internet-based GIS in the area of community vulnerability to regional climate change and variability and coastal zone management.

Matthew W. Wilson

Further Readings

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