Resources for National Dissemination

SPACE seeks to consolidate resources for teaching and learning to help facilitate national dissemination of existing spatial technologies and resources within undergraduate social science education. These include software, publications, and archives of teaching and learning resources developed by the Center for Spatially Integrated Social Science.

Publications

Spatial Social Science – an informative brochure on spatial methodologies in the social sciences.

Spatially Integrated Social Science, edited by M.F. Goodchild and D.G. Janelle (Oxford University Press, 2004). Chapter abstracts, graphics and related materials are available at www.csiss.org/best-practices/siss/.

Software (developed through the Center for Spatially Integrated Social Science)

GeoDa™ is a free software package for exploratory spatial data analysis.
Tobler's Flow Mapper for representing movement on maps from interaction matrices.

Web Resources for Learning and Teaching

CSISS Classics provide summaries of major contributions to spatial thinking in the social sciences prior to 1980. (e.g., John Snow and *The London Cholera Epidemic of 1854*). See www.csiss.org/classics/.

The CSISS **course syllabi collection** provides an opportunity to see how other instructors are using spatial perspectives in their teaching at undergraduate and graduate levels. See www.csiss.org/syllabi/.

The **GIS Cookbook** is a collection of GIS methods written with minimal jargon. The target users are social scientists interested in introducing spatial thinking into their current research but have little to no experience with GIS. See www.csiss.org/cookbook/.

SPACE Consortium Partners

University of California, Santa Barbara
Center for Spatially Integrated Social Science
Institute for Social, Behavioral and Economic Research
Department of Geography

University Consortium for Geographic Information Science
Department of Geography, San Diego State University, 2004
Program in Urban Studies, San Francisco State University, 2005
Department of Geography, University of Oklahoma, 2006

The Ohio State University – Department of Geography

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SPACE

Spatial Perspectives on Analysis for Curriculum Enhancement

SPACE

Spatial Perspectives on Analysis for Curriculum Enhancement

SPACE is a program supported by the National Science Foundation to advance the role of spatial thinking and spatial analysis in the undergraduate curricula of the social sciences. Its goal is to provide university and college instructors with training to design and implement innovative curriculum that will enable undergraduate students to integrate and analyze spatially referenced data with geographic information systems (GIS), analytical cartography, spatial statistics, and other tools.

SPACE workshops provide opportunities to:

- ✓ **achieve** basic understanding of spatial methods and principles
- ✓ **gain** experience with software for GIS, mapping, and spatial statistics
- ✓ **enhance** courses with new concepts and techniques in spatial analysis
- ✓ **learn** approaches to curriculum development and learning assessment
- ✓ **collaborate** with others who teach from a spatial perspective
- ✓ **improve** potential to make innovations at your institution
- ✓ **present** experiences on curriculum development to colleagues

SPACE workshops offer many venues for learning, including lecture, hands-on labs, one-on-one instruction, and peer collaboration.

Students of workshop participants benefit by:

- ✓ **seeing** the value in spatial thinking as applied to issues that impact natural and social environments
- ✓ **experiencing** technologies that enhance understanding of available information resources
- ✓ **using** spatial methods to integrate ideas across multiple disciplines
- ✓ **recognizing** the relevance of using what they learn to understand and resolve societal problems
- ✓ **gaining** confidence in the integration of technology in their education and enjoying greater employment prospects

Instructor Workshops

The **SPACE** program features National Education Workshops to provide undergraduate instructors with basic skills in GIS and spatial analysis and with exposure to the latest techniques, software, and learning resources. Workshops seek high rates of participation among traditionally under-represented groups, provide skills that bridge the gap between research and teaching in the social sciences, and enhance the relevance of the social sciences for solving societal problems and evaluating policy measures.

Workshop participants come from many disciplines:

Anthropology	Economics	Regional Science
Archaeology	Geography	Sociology
Business	Health Studies	Tourism & Recreation Management
Communications	History	Urban Planning
Criminology	Political Science	Urban Studies
Demography	Public Policy	

SPACE participants seek to use spatial perspectives in both methods and theory courses. Many also focus on interdisciplinary subjects, including:

Crime Pattern Detection	Globalization
Poverty & Inequality	Health and Environment
Immigration Policy	Urban Gentrification
Environmental Justice	Social & Ethnic Segregation

SPACE Summer Workshops 2005 - 2006

Participants in the SPACE program are eligible for **scholarship support** for subsistence. The deadline for applications is April 15, 2005. Details are available at www.csiss.org/syllabi/SPACE/workshops.

GIS and Spatial Modeling for Undergraduate Social Science
Ohio State University, July 10-15, Mei-Po Kwan, coordinator
Spatial Analysis for Undergraduate Social Science
UC Santa Barbara, July 11-22, Stuart Sweeney, coordinator
Introducing GIS for Undergraduate Social Science
San Francisco State University, August 1-6, Richard LeGates, coordinator

SPACE will offer three instructor workshops in 2006. The University of Oklahoma will host a new workshop titled **Introducing Remote Sensing in Undergraduate Social Science** along with the workshops hosted at Ohio State University and UC Santa Barbara as listed above.

SPACE is funded under the National Science Foundation's program for Course, Curriculum & Laboratory Improvement - National Dissemination (CCLI-ND)

Academic Conference Courses

SPACE is committed to organizing sessions at major conferences to provide instructors with basic introduction to the uses of spatial technologies in the classroom, to maintain engagement with participants in the national workshops, and to reach wider audiences. SPACE offers financial assistance to former workshop participants who are willing to organize special short programs (e.g., half-day pedagogical workshops) at academic conferences for their disciplines.

Educational Development Awards

Individuals who complete SPACE workshops may apply for awards to participate in other academic or applied conferences that feature spatial technologies. Awards are offered based on submissions that describe their teaching innovations and student achievements. Awardees are invited to post their exercises and syllabi creations, and to highlight their students' course work, on the SPACE web site.

What Participants Say

There is no doubt in my mind that without the SPACE workshop, I would have had neither the inspiration nor the pedagogical resources to expose my students to spatial thinking successfully. Ulla Bunz, Communication, Rutgers University

The Ohio State faculty members involved in the workshop were extremely enthusiastic and served as excellent role models for spatial social science instructors.
Kathleen P. Bell, Economics, University of Maine

One of the real benefits of the SPACE workshop was being introduced to GeoDA for spatial data exploration. I found GeoDa to be a perfect instructional tool because it doesn't have the slow learning curve of conventional GIS packages and has enough statistical tools for most undergraduate geography methods courses.
Mark Bjelland, Geography, Gustavus Adolphus College

Since the SPACE meeting in early August, we have moved forward in our efforts to adapt and implement a two-course curriculum in spatial social science to give undergraduates an understanding of the power of spatial analysis and train them in the practice of this cutting-edge methodology. Christopher Weiss, Sociology, Columbia University

The SPACE workshop provided the raw materials of appropriate software and computer labs, along with excellent instruction in software use and pedagogy.
Wendy Bigler, Geography, Southern Illinois University, Carbondale

Hearing about the experiences of our instructors and my fellow students at the SPACE workshop encouraged me to work on my vision, expand it, and know that I can turn it into reality.
Susan Pulsipher, Library Services, Methodist College

Instructors and participants attending the 2004 workshop at UCSB