



Understanding social networks within complex, nonlinear systems: geographically-integrated history and dynamics GIS [SOCNET]

Progress of the SOCNET project

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June 2011



SOCNET

SOCNET places history and the historical social sciences in a multidisciplinary computational environment to examine historical events across virtual geographic spaces and complex social networks. SOCNET enables historians and historical social scientists to form, manage, visualize and analyze geographically-integrated narratives about social networks. It studies social networks in the first global age (1400-1800 CE) to build a foundation for further studies of space and social networks, and to encourage development of skills needed to encourage spatial analysis in the social sciences.

Since its inception in 2009, SOCNET's participants have made progress in the following fronts: (1) a manual for MapWindow suitable for users in the humanities, (2) software implementation of the ILE database management system, (3) creation of several gazetteers. This progress has resulted in numerous refereed papers, discussion panels, and posters.

SOCNET is funded by the NSF Office of Cyberinfrastructure (J.B. Owens OCI-0941371 and May Yuan, PI; OCI-0941501). Other participants include Daniel Ames, Vitit Kantabutra, Barbara Stephenson, Russell Stephenson, Neda Bezerra, David Dixon, Scott Pearson, Anderson Sandes, Mark Van Orden, John R. McIntosh, Grant De Lozier, Jacob R. Cantrell, Aldo Gangemi, Emery Coppola Jr., and Monica Wachowicz.



J.B. (Jack) Owens

- Project principal investigator and creator.
- SOcNET grew out of the early Dynamic Cooperation Networks [DynCoopNet] project.
- Understand complex, dynamic, nonlinear human systems, and their coupling with natural systems, by inserting social network analysis (SNA) into a dynamic GIS computational environment.

Important research has resulted in numerous refereed papers, discussion panels, publications and posters.

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May Yuan

- Project principal investigator.
- Important research has resulted in numerous refereed papers, discussion panels, posters, presentations, contributions to disciplines (spatial and temporal analysis, GIS data model for events, spatiotemporal analysis of text, text mining, history).
- Working closely with Grant DeLozier, Jacob Cantrell, and Grant Folyd.

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Aldo Gangemi

- Is now the director of the Semantic Technologies Laboratory (STLab) in Rome.

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Anderson Sandes

- Writing the MapWindow manual for historians and historical social scientists with Barbara Stephenson and David Dixon.
- Developing website for SOCNET.
- Research has resulted in one paper, “GIS functions from the perspective of users” accepted at FOSS4G 2011 in Denver (Anderson Sandes, Daniel P. Ames and Keith Weber, Idaho State University).

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Barbara Stephenson

Barbara Stephenson has been working on Social Network Analysis programs, mapping her own data and Ana Solano Crespo's trade voyage data. She has also been working with Scott Pearson on the gazetteers from the Crespo data and the 1590 Spanish census, and directing the MapWindow manual project with Anderson Sandes and David Dixon, as well as conducting research in Bordeaux and writing about that research.

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Daniel P. Ames

- MapWindow software is extensively used in SOcNET projects.
- Important research and software have resulted in numerous refereed papers, discussion panels, and posters.
- Supervising the work of graduate student and SOcNET member Anderson Sandes.

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David Dixon

Directing the MapWindow manual project with Anderson Sandes and Barbara Stephenson.

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Grant DeLozier

- Wrote and improved a Python program which can perform “toponym resolution” or “local disambiguation” on place names appearing in historical texts.
- Participated in Oklahoma’s “Undergraduate Research Day at the State Capital and placed 2nd among research intensive universities for his poster and presentation.

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Monica Wachowicz

Is now at the University of New
Brunswick in Canada.

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Russel Stephenson

- Important research conducted with SOcNET member Vitit Kantabutra and software have resulted in refereed papers, discussion panels, publications, and posters.

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Scott Pearson

- Creating gazetteer and mapping locations (1590 Spanish census).
- Mapping Ana Crespo Solana's data.
- Contributing to paper to be presented at the Social Science History Association in Boston, United States, November, 2011.
- Beginning his last semester of graduate school at Idaho State University in late August.

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Vitit Kantabutra

- Concentrated on developing software prototypes for the ILE software, thereby also solidifying the theory of ILE.
- Wrote a temporal GIS viewer that is based on his Intentionally-linked Entities - ILE-like - linked data structures.
- Working closely with graduate student and SOCNET member Russ Stephenson.
- Important research and software have resulted in numerous refereed papers, discussion panels, publications, and posters.

ILE facilitates flexible connections within a database to permit the creation of more complicated entities. ILE offers us the possibility to link together all of the aspects of such "events" in order to understand them and to create a sequence of other "events" that follow to grasp the consequences.

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