

# **Geographic Visualization Across the Social Sciences: State of the Art Review**

Two-Day Interdisciplinary Workshop  
12-13<sup>th</sup> June 2006  
University of Manchester

## **Workshop Co-organisers**

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## **Workshop Sponsors**

- National Centre for e-Social Science (NCeSS, [www.ncess.ac.uk](http://www.ncess.ac.uk))
  - JISC Visualization Support Network (VizNet)
  - Manchester Computing

## **Aims**

The goal of the two-day workshop is to explore the ‘state of the art’ of geographic visualization across the social sciences, reviewing innovative methods and techniques, evaluating new software tools and data resources, and reporting the development of new applications to support research and pedagogy. It is anticipated that around 30 people will be accepted for participation, along with keynote speakers. The goal is to attract a diverse mix of researchers from different disciplines who are exploiting the potential of geographic visualization to advance social science scholarship.

The workshop will help to foster discussion and interactions between researchers from different disciplines and institutions, as well as highlighting the potential for new computation resources to support visualization coming on-stream from e-Social Science initiatives. Furthermore, the workshop aims to produce an edited book of papers presented to help define the scope of visualization work in the social sciences.

In some senses the workshop in June represents a (near) ten year updating of the AGOCCG-sponsored ‘Graphics, Visualization and the Social Sciences’ workshop held in May 1997 at Loughborough University (see [www.agocg.ac.uk](http://www.agocg.ac.uk)). It will be interesting to see what has changed and what unexpected developments have occurred. It will also be interesting to see where weaknesses and blockages still lie in social sciences more fully exploiting geographic visualization.

## Workshop Themes

There is increasing realisation of the potential for ‘geography’ to provide the primary basis for innovative visualization and knowledge exploration. As can clearly be seen in the rapid growth in the use of geographic information systems (GIS), multimedia cartography and all manner of web-based mapping tools, geographic visualization broadly defined represents a significant area of development for visualization.

Within many social science disciplines there is growing signs of a ‘spatial turn’ as research questions and modes of analysis centre around geographic location and understanding of spatial relations and interactions. Many social sciences disciplines are exploiting the spatial components of large data to facilitate their analysis. Interactive geographic visualization is crucial here.

Outside of academia there is also a great deal of excitement in ‘digital geography’, evident for example in terms of popular mapping of data and new types of application – such as map ‘mash-ups’ using Google maps, the map hacking and open-source mapping activists using cheap GPS to visualise the world afresh. The value of aerial photography and satellite imagery is being unlocked into easy (and fun) browsable interfaces such as Google Earth and Microsoft Local Live.

We are interested in contributions on social science research into geographic visualization and also work on the use of geographic visualization as a component in research and teaching across social science disciplines. The following are some suggested workshop themes:

- Real-time geographic visualization and novel developments in spatio-temporal visualization, particularly in relation to mobile phenomena (for example in revealing travel-activity patterns).
- The role virtual globes (for example as visual metaphor, as a mode of interactive data exploration).
- Understanding the spatial properties of networks (social networks, trade, information flows, rumours, and so on) through geographic visualization.
- Consider the increasing availability of large datasets of social and economic datasets that when geo-coded can be productively analysed through geographic visualization.
- Assess the impact of new ‘visual’ geographic data resources becoming available to social science for visualization in research and teaching (e.g. 3d city models and detailed terrain models, georeferenced photography and video, aerial photography and pictometry).
- The potential of geographic visualization to enrich teaching and learning.
- Ethical considerations in geographic visualization within the social sciences (e.g. privacy and visualisation individually identifiable data)

The organisers also welcome contributions on other themes related to geographic visualisation within social sciences disciplines.

## **Participating**

Researchers and scholars with interests and experiences in geographic visualization from across the social science are encouraged to participate in the workshop. To register interest you are requested to submit a short position paper outlining your interests and a likely presentation topic for the workshop. Position papers should be no more than 750 words and include a brief bio and contact details. Please submit them to Katy Middlebrough ([katy.middlebrough@manchester.ac.uk](mailto:katy.middlebrough@manchester.ac.uk)) by the 21st April. You will be notified by email of the acceptance to participate by 28<sup>th</sup> April.

For those selected to participate and present at the workshop, there will be some bursaries available for travel costs within the UK (equivalent of economy return train fare to Manchester), one nights accommodation in Manchester (night of the 12<sup>th</sup> June) and lunch/dinner. Please indicate on your position paper whether a bursary would be essential to your participation as we would like to target help to people without alternative sources of funding.

Participants will also be expected to produce a full written paper based on their presentation for inclusion in an edited book. The paper should report original material and be of no more than 7,000 words. The deadline for submission of the paper will be 15<sup>th</sup> September 2006.

## **Workshop Format**

The workshop will be run over two full days with a mix of presentations sessions and small break-out discussion in smaller groups. Presentations will be 20 minutes. There will also be a number of keynote talks.

The workshop will be take place at the University of Manchester in the new Michael Smith building, which has state of the art audiovisual facilities including connections to the AccessGrid (<http://www.mc.manchester.ac.uk/services/accessgrid/>).

The conference dinner on the night of the 12<sup>th</sup> June will likely be in a restaurant in Manchester's famous 'curry mile' ([www.manchestersonline.co.uk/food/s/115/115318\\_enjoying\\_the\\_curry\\_mile.html](http://www.manchestersonline.co.uk/food/s/115/115318_enjoying_the_curry_mile.html))

## **Key Dates**

- 21<sup>st</sup> April:      Deadline for submission of position paper
- 28<sup>th</sup> April:      Notice of acceptance
- 30<sup>th</sup> May:        Confirmation of workshop program
- 12<sup>th</sup> June:        Workshop
- 13<sup>th</sup> June:        Workshop
- 15<sup>th</sup> Sept.:      Submission of book chapter

## **Contact**

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