

# Research in the social sciences

## An overview of JISC activities

Briefing Paper

February 2008

The source and nature of data available for social science research is changing. Administrative records (eg education, social care), the worldwide web (eg blogs and wikis) and records of transactions are examples of 'naturally occurring' data that are becoming increasingly available for research and are leading to a shift away from traditional survey-based data collection methods. Meeting the challenges of this 'data deluge' is essential if the UK is to retain its position as a centre of excellence in social and economic research. Existing data collections need to be easier to re-use and simpler links are required between confidential social, medical, transactional and administrative data sets.

JISC is helping to meet these challenges by funding a number of services and research and demonstration projects to ensure that data collections are easier to discover, and more easily accessible for re-use and analysis.

Probably the best known JISC-funded service is the Joint Academic NETwork (**JANET**) which provides UK academics with access to distributed research resources including data. However, data needs to be readily available and JISC overcomes commercial barriers by negotiating access at a reduced price to major digital collections on behalf of the UK academic community. Included are data sets and survey results as well as online journals.

### Data services for social scientists

The **Economic and Social Data Service** (ESDS) is jointly funded by JISC and the Economic and Social Research Council (ESRC). The ESDS provides resource discovery, access and support for a wide range of quantitative and qualitative economic and social data, including value-added services for government surveys, international data, qualitative data and longitudinal surveys.

JISC also provides access to key data and information resources, such as bibliographic databases and geo-spatial data resources, through the National Data Centres based at Edinburgh Data and Information Access (**EDINA**) in Edinburgh University and

### Faster subject reviews

Compiling a systematic review of a topic is a time-consuming process. The Automatic Summarisation for Systematic Reviews using Text Mining (ASSERT) project has developed text mining tools to search out relevant papers, cluster them into related topics and produce short summaries of each paper, considerably aiding the reviewer and speeding up the review process. Originally developed with the biosciences in mind, these techniques are now being applied to the social sciences. A related project, a collaboration between NaCTeM, the National Centre for e-Social Science and the ESRC Centre for Research on Socio-Cultural Change (CRESC), is exploring how to customise ASSERT tools for the social sciences and humanities.

### Integrating processes to speed up research

The ESRC-funded Grid-Enabled Micro-Econometric Data Analysis (Gemedata) project used the JISC-funded National Grid Service to explore the distribution of poverty among ethnic minorities. A model of individual income derived from a small, detailed survey was applied to census data using the NGS to integrate the three elements of the modelling process: data handling, econometric computation and visualisation of results. The project showed how a non-expert user could execute the three elements through a web browser interface, thus speeding up the overall research process.

Manchester Information and Associated Services (**MIMAS**) at the University of Manchester (see overleaf for examples).

### e-Science in the social sciences

A programme of work is under way to make some of the key data sets stored at these centres accessible to researchers via the JISC-funded **National Grid Service** (NGS) which makes distributed computational resources and databases available to users from the comfort of their own desktops. The Grid Enabling MIMAS Services (GEMS) project, for example, is providing grid-enabled access to the aggregate statistics from the 2001 Census, and the Grid Enabling EDINA Services (GEESE) project aims to make key data resources at EDINA available via the NGS.

The grid-enabling of these data sources is allowing social scientists to exploit advanced Information and Communications Technology (ICT) methods (e-science) in their research, facilitating new ways of collaborating and sharing resources. JISC is promoting the adoption of these methods through the Resource Discovery for Researchers in e-Social Science (**ReDRess**) project which is creating web-accessible multimedia training materials on e-social science techniques.

Another e-science-related initiative is the **National Centre for Text Mining** (NaCTeM) which provides text mining services for the UK academic community. With JISC funding, NaCTeM is developing new text mining applications specifically for social scientists.

Under its e-Infrastructure programme, JISC is working with the Research Councils to deliver many of the facilities and tools needed to enable research using e-science techniques. The **Virtual Research Environments** (VRE) programme, for example, is developing applications and methods to support and manage the process of research.

JISC also supports many generic activities of relevance to the social sciences. See overleaf or [www.jisc.ac.uk](http://www.jisc.ac.uk) for further information.

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## Information and Resources

### Services

JISC services provide facilities and advice to researchers and teachers in further and higher education. Some of these services are co-funded with the Higher Education Funding Council for England, the Economic and Social Research Council and other Research Councils.

### Network

- **JANET** [www.ja.net](http://www.ja.net) the UK's education and research network. JISC sets the strategy and provides funding for JANET. Associated services include JISCmail, JANET roaming and JANET video conferencing

### Collections

JISC negotiates on behalf of UK institutions to make collections of important material available to researchers at a reduced price. The collections can be accessed via JISC Collections or the JISC-funded data centres, MIMAS at Manchester University and EDINA at Edinburgh University. The UK Data Archive is hosted by the University of Essex.

- **JISC Collections** [www.jisc-collections.ac.uk](http://www.jisc-collections.ac.uk)  
eg Capacity Builder, providing information on community development and social policy; Oxford Scholarship Online; Social Policy and Practice bibliographic database; the Landmap Service
- **EDINA** [www.edina.ac.uk](http://www.edina.ac.uk)  
eg Digimap Collections; UK Borders; Serial Union Catalogue (SUNCAT)
- **MIMAS** [www.mimas.ac.uk](http://www.mimas.ac.uk)  
eg Copac Academic and Library Catalogue service; Zetoc, the British Library's electronic table of contents; Census aggregate statistics; Spatial Data (Satellite Earth Observation); Intute Social Sciences; JSTOR academic journals digital archives
- **UK Data Archive** [www.data-archive.ac.uk](http://www.data-archive.ac.uk)  
houses data collections in the social sciences and humanities. It is a lead partner in the Economic and Social Data Service [www.esds.ac.uk](http://www.esds.ac.uk) which includes four specialist data services, ESDS Government, ESDS International, ESDS Longitudinal and ESDS Qualidata

### Generic and e-science services

- **National Grid Service** [www.ngs.ac.uk](http://www.ngs.ac.uk) provides access to grid computing facilities
- **Access Grid Support Centre** [www.agsc.ja.net](http://www.agsc.ja.net) offers advice on using the Access Grid video conferencing facility for collaborative research
- **Digital Curation Centre** [www.dcc.ac.uk](http://www.dcc.ac.uk) researches issues around data curation and promotes good practice
- **National Centre for Text Mining** [www.nactem.ac.uk](http://www.nactem.ac.uk) provides text mining services for the academic community
- **vizNET** [www.viznet.ac.uk](http://www.viznet.ac.uk) supports researchers in the use of techniques for visualising data across a computing grid
- **OSS Watch** [www.oss-watch.ac.uk](http://www.oss-watch.ac.uk) Open Source Software Advisory Service

### Development

JISC funds research into and development of new ways of using ICT in further and higher education and research.

- **Support for e-research** [www.jisc.ac.uk/eresearch](http://www.jisc.ac.uk/eresearch)  
Projects which are still on-going or have a lasting legacy include: ReDReSS, an awareness and training environment for e-social science; GEMS, grid-enabling data from the 2001 Census; GEMS II, grid-enabling Satellite Image Data Service; GESE, grid-enabling geospatial resources; CO-ODE: Collaborative Open Ontology Development Environment, developing the use of ontologies in grid and Semantic Web environments
- **Grid OGC Collision** [www.jisc.ac.uk/gridogccollision](http://www.jisc.ac.uk/gridogccollision)  
This programme is working with the Open Geospatial Consortium to develop secure ways of accessing geospatial data across a grid. Projects include: SEcurE access to GEOspatial services (SEE-GEO), which is accessing geospatial web services using open interoperability standards running on the National Grid Service
- **Repositories and Preservation** [www.jisc.ac.uk/reppres](http://www.jisc.ac.uk/reppres)  
This programme supports institutions to set up and run their own repositories. Projects include: Data Exchange Tools and Conversion Utilities (DExT), developing tools to enable curation and exchange of data; DISC-UK Datashare, data sharing and archiving in the social sciences; Source-to-Output Repositories (StORe), interaction between repositories of research data and publications; Repositories Support Project, a major initiative to support institutional repository development
- **Digitisation** [www.jisc.ac.uk/digitisation](http://www.jisc.ac.uk/digitisation)  
JISC is continuing a programme of digitising valuable, scholarly resources which will enter the JISC Collections portfolio, eg online historical population reports
- **Portals** [www.jisc.ac.uk/portals](http://www.jisc.ac.uk/portals)  
JISC is developing the use of portals which provide a common point of access to widely distributed information on a topic. Projects include: Go-Geo! Geodata Portal
- **Virtual Research Environments** [www.jisc.ac.uk/vre](http://www.jisc.ac.uk/vre)  
This programme is developing frameworks to enable researchers to collaborate across boundaries in virtual organisations. Projects include: myExperiment to enable researchers to share digital resources such as scientific workflows

### The Information Environment

JISC has a large portfolio of development programmes and projects aimed at delivering an Information Environment which will enable seamless access to the information academics need for research, teaching and learning and the tools they need to process that information and collaborate with others. [www.jisc.ac.uk/informationenvironment](http://www.jisc.ac.uk/informationenvironment)

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