



THE WHITE ROSE GRID

e-Science Centre of Excellence

e-Social Science and the White Rose Universities

"The Hydra tool combines complex resource allocation models with access to distributed databases in order to facilitate evidence-based decision-making within the National Health Service."

Research

Hydra is a prototype of a Grid-enabled spatial decision support system, which has been developed through collaboration between geographers and computer scientists at the University of Leeds. The Hydra tool combines complex resource allocation models with access to distributed databases in order to facilitate evidence-based decision-making within the National Health Service. The development of Hydra has been funded by ESRC and DTI.

In the second development phase of Hydra (commencing September 2003) we intend to extend the range of functionality to provide decision-support in areas such as land-use planning and retail location modelling. We aim to support these services through a virtual database which has been extended to include appropriate components such as 2001 census data, house prices, deprivation indicators, and third party business data.

Collaborative Analysis of Offenders' Personal and Area-based Social Exclusion. This e-Science project

addresses the complex and multi-dimensional issue of understanding the social dimensions of young people who are at risk of committing crime and/or being victims of crime, and their environment, including the impact of a variety of policy solutions. The project is based on the collaboration of Connexions South Yorkshire, South Yorkshire Police, and the four local authorities in this region. The potential of Grid technologies is tested both in respect to the distributed analysis of the qualitative and quantitative data needed to address the multiple dimensions of social exclusion, and in respect to the integration of Open-Grid and Open-GIS architectures to develop a truly collaborative environment accessible by different stakeholders.

Court21: The 21st Century Digital Courtroom, is a project involving the Schools of Business, Law and Computing at Leeds together with CourtCom Ltd and the William and Mary Law School. New communications technologies are having major impacts on litigation and the very nature of the courts. The electronic presentation of



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evidence, video links with remote witnesses, digital document exchange and court web pages are amongst the important developments which are being explored in this project.

Simple Models of Complex Networks is a Research Cluster funded under EPSRC's Novel Computation Initiative. In addition to computer scientists, mathematicians, biologists and life scientists, the cluster includes social scientists with interests in education, linguistics and geography.

Infrastructure

Sheffield's prestigious **Informatics Collaboratory for the Social Sciences** (ICOSS) will be completed in 2004. Funded through the Science Research Infrastructure Fund (SRIF), ICOSS will provide space for 100 researchers from geography, planning, criminology, health services and other substantive social science disciplines. ICOSS will encourage the development of evidence-based policy research with a strong underpinning in e-Science technologies including data mining, spatial and temporal analysis, data modelling, and visualisation methods.

The **Informatics Network** (IN) at Leeds was opened in January 2003. The hub of this Network is home to a virtual environment laboratory, interactive graphics laboratory, state-of-the-art

conferencing room and two SGI Onyx3 graphics supercomputers. This is a multi-disciplinary Institute with research collaborations in the domains of Education, Geography, Social Policy, Law, Business and Health.

Further Information

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The relevant web pages are at:

1. Hydra: <http://www.informatics.leeds.ac.uk/hydra>
2. Collaborative Analysis of Offenders' Personal and Area-based Social Exclusion: <http://www.shef.ac.uk/ccr/>
3. Court21: The 21st Century Digital Courtroom: <http://www.leeds.ac.uk/law/conf/court21.htm>
4. Simple Models of Complex Networks: www.informatics.leeds.ac.uk/complexnets
5. Informatics Collaboratory for the Social Sciences: <http://www.shef.ac.uk/~scgisa/newscgisa/icoSS.htm>
6. The Informatics Network at Leeds: http://www.informatics.leeds.ac.uk/pages/05_facilities/01_facilities.htm

