Go-Geo! resources: supporting UK academic geospatial data management and sharing

Welcome to the second edition of Go-Geo! Metadata News, the biannual newsletter for UK academics, researchers and students interested in issues and news surrounding spatial data management and sharing. The newsletter also covers geospatial standards and metadata, and announces service updates for the Go-Geo! portal, Metadata Editor tool and supporting metadata creation resources.

Go-Geo! is an online service provided by EDINA, a National Data Centre at the University of Edinburgh. It is a suite of JISC-supported online resources supporting geospatial metadata creation and spatial data discovery for the UK academic community. The Go-Geo! Metadata Editor tool, Academic Geospatial Metadata Application Profile (AGMAP), geospatial metadata guidelines and online teaching materials aid the creation of metadata records; the Go-Geo! portal makes publishing records easy. Cross-searching other data catalogues is possible with GoGeo!, which also provides access to a full range of online GI resources including current news, conferences, other events, links to free GIS software and online services and more.

Go-Geo! Metadata News circulation is intended to reach the wider geographic information community in UK academia.

Readers are invited to submit articles or comments for publication in future newsletters. If you have articles, news or comments to share, please contact the EDINA helpdesk (edina@ed.ac.uk) or call the helpdesk at 0131 650 3302. The submission deadline for the next issue is 1 February 2007.

Spatial data audits find 100s of spatial datasets

It is commonly acknowledged that more widespread and efficient access to and sharing of research data has substantial benefits for most areas of research. These shared data need to be ‘found’ and ‘retrieved’, usually implying use of a discovery tool to support this. However, ‘found’ has another meaning. Many institutions need to undertake ‘data archaeology’ or investigations simply to learn what data they have.

As part of their project requirements, four institutions of a Go-Geo! pilot study for establishing local data management resources, have conducted local spatial data audits. Three of the four institutions involved in the Go-Geo! pilot study have completed spatial data audits, and to date, have yielded almost 400 spatial datasets, and revealed an eclectic range of academic disciplines creating and using spatial data. Investigations have also indicated that there may be ‘hundreds more’ orphaned spatial datasets in existence.

The implications for UK academia are considerable. The potential existence of hundreds of spatial datasets, many of which might be re-usable by others, are resources that should be better exploited. Re-use of such resources can have many benefits, the obvious one being a reduction in the time and effort required for dataset creation. Access to these datasets could also initiate new research activities and...
There are ongoing concerns about provenance, data quality, IPR and the sharing of data derived from licensed sources. Local data management pilot studies aimed to offer an interim solution for data creators to manage their datasets until conditions become more favourable for data sharing. Considering the investment of time and cost in dataset creation, there are immediate benefits to be reaped in using Go-Geo! resources for local data management. Athens Eduserv now allows institutions to cascade access to Go-Geo! resources, making the metadata editor tool and ‘My GoGeo!’ available to all users at an institution. The former can be used for the publication of metadata records on a localised Go-Geo! portal, thereby restricting metadata records access to those affiliated to that institution. (Please contact the EDINA Helpdesk at edina@ed.ac.uk for further details or to request Go-Geo! as an institutional Athens resource.)

EDINA is investigating business models by which Go-Geo! might support a local data management service for academic institutions. The original intention was to offer Go-Geo! resources and tools to assist in the creation of geospatial metadata and thereby support local data management. However, EDINA is now looking at options to incorporate a spatial data repository into the local data management scheme. Feedback from metadata workshops has indicated great interest in such a scheme, which would allow management of both metadata and spatial datasets locally using customised Go-Geo! resources and a spatial data repository. A centralised version of the repository would also be made available for those wishing to share datasets across UK academia. EDINA’s long term goal is to support the entire life cycle of a spatial dataset, from creation to preservation and archiving.

**Workshops**

Geospatial metadata workshops were recently conducted at Heriot-Watt University (4 October) and Oxford University (2 November).

More workshops have now been scheduled at the following institutions in November:

- **University of Stirling**: 17 November
- **Glasgow**: 23 November
- **Aberdeen**: 24 November
- **University of Leeds**: 29 November

University of Cambridge: 30 November

Please contact the EDINA helpdesk (edina@ed.ac.uk) if you wish to attend one of these workshops. If you would like to host a workshop, you will need to provide a computer lab with internet access and facilities for giving a presentation. EDINA can provide all the necessary support to publicise, organise and run the workshops. Please contact the helpdesk for further details.

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**Do you have spatial data you want to share with others? Then you might be interested in the GRADE Demonstrator Repository**

**Reutilising and sharing geospatial research data: GRADE (Geospatial Repository for Academic Deposit & Extraction).**

Conventional scientific method has traditionally been data-driven, and technical advances have made the use of digital data more widespread. However, within the GIS community, barriers such as IPR, licensing, dissemination and publishing constraints, coupled with complex high-volume data file types have been a hindrance to re-use and sharing of geospatial data for research within academia. The need to address these issues, and the technical & cultural barriers to the reuse of spatial data, was the impetus for the JISC-funded project GRADE.

The GRADE geospatial repository has now been in operation for six months. The repository currently holds 98 free geospatial datasets, and is being used to test this mechanism of sharing data among our four pilot sites at Edinburgh, Kingston, Nottingham and Strathclyde Universities, and with interested individuals at other institutions. If you are keen to participate, register at: http://gradedemo.edina.ac.uk/dspace/register. You need to be a registered user of the Digimap Ordnance Survey Collection.

The Repository is being used in conjunction with the results of an informal geospatial data sharing questionnaire to examine issues connected to reuse of geospatial data. For those wishing to contribute the questionnaire is still available at: http://edina.ac.uk/projects/grade/questionnaire.html.

Legal work connected to UK Copyright law and the EU Database Directive, and generating a framework for GRADE, has been finished and reports on this will be available from the website in the near future.
Metadata in the news

• The final release of ISO 19139 schema for ISO 19115 took place in May 2007. ISO 19139 provides an encoding schema for describing, validating, and exchanging metadata about geographic datasets, dataset series, individual geographic features, feature attributes, feature types, feature properties, etc.

• The Open Source Geospatial Foundation (OSGeo) has been created to support and build the highest-quality open source geospatial software. The foundation’s goal is to encourage the use and collaborative development of community-led projects. The OSGeo site also has information about a proposal for a lightweight version of Dublin Core for Geo, or DClite4G. DClite4G defines the minimal information model for metadata exchange, harvesting and discovery. However, this does not serve as a substitute for full metadata creation amongst data creators. The UK AGMAP profile provides a complete set of elements which allows for detailed documentation of a dataset’s lifecycle including data capture and processing; these are critical for dataset tracking and maintenance. UK AGMAP also provides elements which allow data creators to state the quality of their datasets, allowing potential users to assess their fitness for purpose. Updates and further information about DClite4G are available at http://wiki.osgeo.org/index.php/Geodata_Metadata_Requirements#Information_model_for_metadata_exchange

• Want to stay current with the latest news developments in geographical metadata standards, data policy, and other initiatives? Then visit Bryan Lawrence’s blog site at http://home.badc.rl.ac.uk/lawrence/. Bryan Lawrence is Head of the British Atmospheric Data Centre in Oxford.

• Guidelines are being produced for the recently revised edition of BS 7666 spatial datasets for geographical referencing. These guidelines are intended to make the Standard more accessible and usable. More information about this can be found on the Improvement and Development Agency (IDea) website. http://www.idea-knowledge.gov.uk/idk/core/page.do?pageId=640617

Did you know?

• There are now over 200 recently published GI-related book titles posted on the Go-Geo! portal. Publishers include Springer, Prentice Hall, Taylor & Francis, Wiley and others. New titles are posted as publishers release them, including new titles for 2007. The book title channels are available via the ‘Research Materials’ and ‘Learning Materials’ links under the resource column on the home page of Go-Geo!

• Want to know when a new book title has been released and posted on Go-Geo!? Use ‘My Go-Geo!’ to register for email alerts. When new resources, news items or new metadata records are added to Go-Geo! an announcement is sent out to registered ‘My Go-Geo!’ users. Also, those users, with Athens authorisation, can log into ‘My Go-Geo!’ to access the British Geological Survey (BGS) JIDI Image Collection.

• All Athens users at the College of North West London, Edinburgh, Glasgow, Kingston, Leeds and Strathclyde Universities now have access to Go-Geo! resources. If you too want to create a ‘My Go-Geo!’ account or create and store your geospatial metadata records in a secure, private system, please contact the EDINA helpdesk (edina@ed.ac.uk) to make these Go-Geo! resources available to your institution.
• Metadata Teaching and Learning resources will be made available on the Go-Geo! portal at the end of November 2006. These modules serve as a resource and reference for academics introducing metadata concepts and data management techniques to students.

• In early 2007, watch for changes to the web design and functionality of Go-Geo!. Efforts are taking place to enhance its appearance and extend its functionality to support spatial data created outwith the UK. Many academics conduct fieldwork around the world, and Go-Geo! resources will be enhanced to support metadata creation and publication of non-UK based datasets.

• Those involved in marine research activities might find the Marine Information Community Interoperability Forum website a useful site: https://www.seegrid.csiro.au/twiki/bin/view/Marineweb/WebHome

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**Report on Digital Curation Centre workshop, (October 2006)**

**Maintaining Long-term Access to Geospatial Data**

On Friday 27 October, the UK Digital Curation Centre (DCC) held a one-day workshop, hosted by the e-Science Institute (eSI) in Edinburgh. The workshop, on maintaining long-term access to geospatial data, was targeted for people already knowledgeable about geospatial data use and management. The workshop’s theme reflects the missions of both the DCC and the eSI, which is to assist scientists and other researchers in actively managing and adding value to the digital data collections they work with over long time periods. The goal of the workshop was to bring together a group of people who could learn from and update each other on progress and best practices. This was achieved through eight short presentations covering the three following themes:

- Citation and management of geospatial databases
- Geospatial data formats and metadata
- Geospatial repositories and storage

**Presentations and speakers included:**

*Using XML manifests to cite geospatial feature databases*, Rajendra Bose and Guy McGarva, DCC.


*North Carolina Geospatial Data Archiving project (NCGDAP)*, Steven. P. Morris, North Carolina State University Libraries

*Go-Geo! UK academic geospatial metadata standards and formats*, Tony Mathys, EDINA

*National Geospatial Digital Archive (NGDA) project*, Greg Janee, University of California at Santa Barbara

*British Atmospheric Data Centre (BADC)*, Sam Pepler, BADC

*The UK Geospatial Repository for Academic Deposit and Extraction (GRADE) project*, James Reid, EDINA

*Geospatial Repositories*, Humphrey Southall, University of Portsmouth/Great Britain Historical GIS

The day culminated with an open discussion session between workshop participants and a panel of four speakers.

The workshop attracted 35 participants from various organisations across the UK.

The workshop was organised by Rajendra Bose, DCC Postdoctoral Researcher (School of Informatics, University of Edinburgh), Guy McGarva, DCC Geospatial Advisor (EDINA National Data Centre, Edinburgh), and Joy Davidson, DCC Training Coordinator (University of Glasgow).

A brief synopsis of the workshop, the presentations and other material for download are available at:

http://www.dcc.ac.uk/events/geospatial-2006/

The original workshop website is located at: http://www.nesc.ac.uk/esi/events/697/