



Putting GIS in its place

Securing the use of geotechnologies in
UK schools



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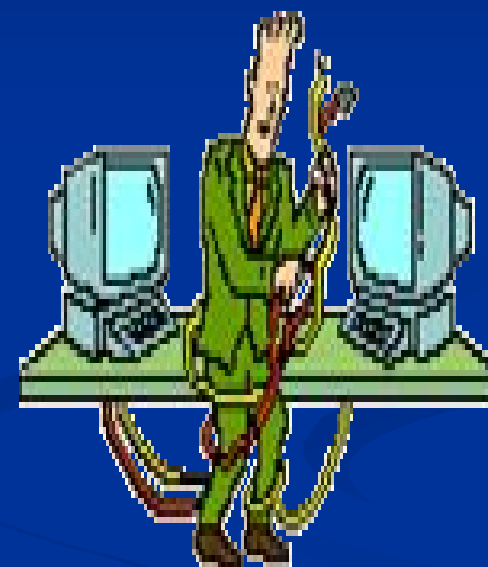
Frequently cited advantages of using geographic information systems

- Flexible access to high quality geo-data
- Powerful spatial tools
- Real world work skills
- Academically motivating
- Raises profile of geography
- Encourages spatial querying
- Suited to problem-solving



GIS Barriers in UK schools

- Perceived steep initial learning curve for students & teachers
- Costly training
- Real and perceived lack of appropriate teaching materials
- Lack of curriculum guidance
- Perceived as the territory of the ICT innovators only



Growing body of evidence of the pedagogical benefits of using GIS

- Range of geographically-related information in one place can help teachers inject pace and variety into lessons
- Higher level critical querying skills which move us away from simple question & answer lessons
- Potential of web-enabled GIS allowing students to access data at home
- Students as decision makers and data creators
- High quality visualisation
- Potential to produce maps of a professional quality
- Using GIS-generated maps across the curriculum
- Can take place on an individual PC, an IWB or in a networked suite
- Fixes powerful significance to specific locations in students minds



An example of effective GIS : The Durham Schools Mapping System



- Won the Association for Geographic Information (AGI) award for Innovation in 2003
- Web-enabled cross-curricular GIS via a curriculum extranet (CNET)
- Over 300 schools
- Cross-curricular
- Designed for GIS ‘beginners’ & ‘innovators.’

<http://gis.durham.gov.uk/mapping>

Some ideas for cultivating proactive approaches to getting GIS effectively into classrooms

- Building GIS industry partnerships e.g. the Durham Schools Mapping System
- Capitalising on current expertise by connecting current GIS innovators with GIS beginners via networks
- Working the 'wow factor' - Google Earth can work to our advantage!
- Start simple e.g. Mapping Our World (ESRI)
- Incorporate web-enabled GIS e.g. InfoMapper
- Establish a dual GIS implementation route - via Geography & across the curriculum
- Develop a continuing professional development (CPD) qualification in GIS-assisted teaching skills
- Avail of online GIS training e.g. ESRI
- Plan for future GIS-assisted geography curriculum development e.g. Institute of Education (University of London) and Geographical Association (GA) combined project on the 2012 London Olympics.



Some useful weblinks

1. <http://gis.esri.com/industries/education/arclessons/arclessons.cfm>
2. <http://gis.durham.gov.uk/mapping>
3. <http://gisvision.ibsystems.com/casestudy/sas%20full.php>
4. <http://rockyweb.cr.usgs.gov/public/outreach/mapmys.html>

Thank you for listening....



Any questions?

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