Geospatial technologies in distance modules in Science
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PROJECT QUESTIONS

• How can we maximize the advantages of using GIS in distance teaching?
• What can be done to alleviate student, tutor and production team difficulties in using GIS?
• What specific modifications (e.g. technological, pedagogical, or logistical) can we make to benefit the students on these modules?
• Are students comfortable engaging with GIS technology in this way?
• How do geospatial technologies compare with traditional paper maps for distance learning?

METHODOLOGY

PHASE 1
2011 to Nov 2012
S276 Geology & S288 Practical Science

Forum discussion
Elicited ALs’ opinions (S276), prior GIS experience

Pilot: students
2 ALs to run short pilots towards end of 2011K presentation of S276, followed by free discussion on forums after module end (Summer 2012)

Questionnaire & focus group: students
Assessing prior GIS experience, views on geospatial technology in the module (S276), examples of specific benefits and problems

Forum data
Collation of data from student and tutor forums (S288)

PHASE 2
late 2012 to late 2013

Face-to-face interviews
Collecting more detailed information on GIS-based aspects of S276 and S288 from students and tutors

Statistical analysis
Collation of IET data from end-of-module reports, and requesting additional data relevant to the student experience of GIS technologies (e.g. demographic, educational background, region, IT experience/facilities, ethnicity, career, mobile ownership)

Redevelopment
Modification of S276 Geology Blog drawing on Phase 1 results

ANTICIPATED OUTCOMES

1. Identifying particular problems – and benefits – associated with GIS software and materials in a distance learning context.
2. Documenting solutions to GIS-related problems in module production and presentation.
4. Identifying issues involved in geolocation (photos, videos, data) for distance learners.
5. Dissemination of results via: (i) at least 1 peer-reviewed manuscript; (ii) conference papers; (iii) series of internal papers on using GIS materials/software in distance teaching; (iv) podcasts on using open-source GIS software; (v) internal workshops/seminars connecting different communities using GIS at the OU

Figure 1
S276 Geology Photo Blog map page (screenshot).

Figure 2
This study is tracking the progress of students – and tutors! – using open-source GIS software in S288 Practical Science for activities including classification in the Remote Observation topic.