

ODL: the not-so-lonely option

Graham Smith and Richard Armitage outline the merits and challenges of Online and Distance Learning in GIS education

The last few years have witnessed an enormous growth and uptake of online learning and training in GIS through Massive Open Online Courses (MOOCs). However, remotely-based, or distance learning in GIS has a longer history, with a number of Higher Education Institutions (HEIs) both here in the UK, and across Europe and North America having offered distance learning programmes in GIS since the early 1990s.

On-the-job learning

It is commonplace for Online and Distance Learning (ODL) students to also work full-time. The nature of contemporary life and its many commitments typically prevent such students from being able to take time out to participate in traditional full-time face-to-face (F2F) study programmes. These time pressures, exacerbated by the dynamic nature of GIS and its ever-changing technology, continue to drive the demand for academic programmes to support people working in the GI sector.

ODL programmes offer participants the opportunity to combine study for a postgraduate degree (most commonly) while continuing to gain work experience. As such, they have proven valuable in furthering the careers of those who may be working with GIS on a daily basis but have no formal qualification in the subject.

Clearly, this type of on-the-job learning places different demands on the learner compared to more traditional delivery modes. For example, it is not uncommon for an ODL student to postpone working on an assessment to accommodate particularly busy periods at work, or to access a tutor outside normal teaching hours. This need for flexibility, together with curricula that are responsive to technological advances, has required educators to consider new modes of delivery and programme design. UNIGIS is a prime example.

UNIGIS UK: a short history

UNIGIS UK (www.unigis.org) started in the early 1990s as a collaboration between three universities in the North of England. The joint nature of the UNIGIS MSc programme, which was unique at the time, enabled those universities to take advantage, as they still do, of the wealth of GIS expertise across the different institutions, and to offer a more comprehensive programme than would have been possible at a single HEI.

Soon after its inception, UNIGIS UK linked up with other HEIs across Europe and beyond to become part of the UNIGIS International Association (www.unigis.net) – a global network of GIS educators whose focus is on distance learning.

Throughout its 25-year history, UNIGIS UK has witnessed significant changes in terms of delivery (from posting material to the digital delivery of a multimedia-rich, virtual learning environment); curriculum developments (e.g. webGIS, programming); as well as new GIS vendor-supported software provision and technical support. However, what remains unchanged is the presence of dedicated personnel offering friendly advice and support on administrative and course-related matters.

UNIGIS UK currently operates as a joint distance learning

programme between Manchester Metropolitan University and the University of Salford. It offers three different Masters programmes including GIS, GI Technologies, and Applied GIS, and will shortly embark on a programme review in 2016-17 to ensure that its courseware and materials reflect the rapidly changing nature of GIS and the GI industry.

A new era for CPD

Recent years have seen further changes in the nature of online learning. Much has been driven by the economic downturn, as well as by the annual Continuous Professional Development (CPD) requirements for membership of professional and regulatory bodies (e.g. GIS Professional (GISP), Chartered Geographer status).

The result has been increased demand for short courses within GIS, alongside more formal qualification-based programmes. In line with this demand, UNIGIS UK will offer a range of CPD units from September 2016.

Supporting learners online

Good lines of communication and support are vital for successful ODL. Even with current communication technologies, students can still find the learning process isolating in the absence of face-to-face access to other students and to tutors experienced on F2F programmes.

At UNIGIS, Virtual Learning Environments (VLEs) have been important in creating student 'buddy' groups and discussion lists/forums that aid both live and asynchronous communication between students and staff.

Lessons have also been learned from MOOCs, with the introduction of webinars and the greater use of multimedia to enrich course materials. These developments have helped to mitigate the "loneliness of the online distance learner", and allow students to have the benefits of distance learning while still feeling part of a programme. The success of the UNIGIS approach is demonstrated by the 25-year history of the programme.

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