

JISC

Innovative Practice with e-Learning



Case Studies

Widening participation

Bringing technology to the learner
Gloucestershire College of Arts and Technology

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Background

Gloucestershire College of Arts and Technology (Gloscat) serves a diverse region which ranges from city centres to traditional village communities in the Cotswolds. As part of the college's lifelong learning strategy, an out-reach service has brought ICT classes to adult learners unable to attend college classes.

The challenge

Many adults in low income groups or rural areas remain excluded from the digital revolution, yet ICT skills can offer access to information, a means of keeping in touch with distant relatives, and even a gateway to employment. Further education colleges have offered ICT classes in community venues for some time, but difficulties with broadband connectivity have restricted the range and flexibility of provision in rural areas, while learners' inability to travel has prevented them from joining campus-based classes.

Innovative solutions

In 2003, the college purchased a satellite communication van (the Satvan), capable of connecting to the internet via the Global Positioning System (GPS) from almost anywhere. The Satvan can enable hard-to-reach learners to develop new skills on internet-connected laptops in their own learning spaces – village halls, urban community centres, residential homes, and even the local pub.

A dedicated team arranges classes and plots the Satvan's route, ensuring it provides two or three classes per day over five days a week. A technician is employed to drive the van and set up the satellite communication, providing a broadband wireless link to the unit's 15 laptops.

Working in their own environment to acquire skills in word processing, spreadsheets, internet research, email and website development has proved very popular with learners. The results can also benefit the community as a whole: for example, creating a village website can involve all age groups in researching and promoting local amenities to a wider audience. The value of informal learning is that it removes boundaries: a group of older learners and staff in a sheltered housing complex, for example, have worked together to develop a booklet on the local town, Stow-on-the-Wold.

The technology

SatWeb provides the broadband connectivity and 24 hour technical support for the satellite equipment used on the Gloscat Satvan. A GPS handset is used to locate the satellite.

Network traffic is carried via the satellite between Tachyon Customer Premises Equipment (TCPE) and a hub (the Gateway). The TCPE is a terminal that connects subscriber sites into private and public networks and sits at the subscriber's site. The network is monitored and managed from a network operation centre and uses standard protocols and interfaces.

Faronics™ Deep Freeze™ software has been installed on all laptops to restore standard Windows® settings following class use.

Making it happen

Laptops will need maintenance every six to eight weeks; allow for at least one laptop being out of service for maintenance when taking bookings. Laptops can be affected by cold or damp conditions when stored in the van and are easily damaged in transit, so robust equipment is essential. Opportunities for learners to progress on to formal qualifications will be needed, where appropriate.

“The groups most affected by the digital divide are those which are already the most excluded within society.”

Digital Inclusion, The Scottish Executive (2001)

Key points for successful innovation

- Technology that works with reliable technical support.
- Team training in disability, equal opportunities and health and safety legislation.
- Promotion and publicity to involve hard-to-reach learners.
- Sources of funding to sustain administration of the scheme, maintenance of equipment, travel costs to venues and training of van drivers. This project was originally funded by the European Social Fund (ESF).

Final word

A mobile laptop scheme can provide a means of bridging ‘the digital divide’ by ensuring that otherwise excluded learners have the opportunity to acquire ICT skills, and can feel part of a larger educational organisation. Other uses could include supporting remote rural businesses, promoting e-citizenship and capturing local knowledge to develop an oral history of an area.

The use of better resourced IT suites in local schools may reduce the demand for mobile ICT training in the future. The resources could then be used to focus on the most disadvantaged categories of learners in urban as well as rural areas.

For further research

JISC: Satellite Technology and Education –
www.jisc.ac.uk/sat_home.html

NIACE: Learning through Information and Communication Technology (ICT) –
www.niace.org.uk/Research/ICT/Default.htm

Satweb – www.satweb.co.uk/index.html

Faronics™ Deep Freeze™ –
www.faronics.com/html/deepfreeze.asp



