

Learning and Teaching Scotland (LTS) is the organisation for the development and support of the Scottish curriculum and is at the heart of all the major developments in Scottish education, moving education forward in partnership with local authorities and schools. This corporate profile focuses on the important role that LTS has had in developing Glow (the new name for the Scottish Schools Digital Network (SSDN)).

Glow is Scotland's national schools intranet, digitally linking 800,000 educators and pupils around the country. It is funded by the Scottish Executive and managed by Learning and Teaching Scotland in partnership with RM. The major components are a national directory and authentication system, collaborative software tools and a virtual learning environment.

The Interconnect provides the fast, high quality communications Glow requires. It is a broadband network connecting every local authority in Scotland, the Glow datacentre and national bodies such as Learning and Teaching Scotland.

Marie Dougan has now been appointed as Programme Director, Glow. The next LTS corporate profile will feature an update from Marie.

www.glowscotland.org.uk

Let there be light

Provoked by the poor track record of large information technology projects, a teacher at last year's Scottish Learning Festival (SETT 2005) put a question to the Scottish Executive: 'Will the Scottish Schools Digital Network actually work?'

The reply from the stage was reassuring but, in that setting, necessarily brief. The question remains pertinent today. In the more tranquil surroundings of Learning and Teaching Scotland's new offices in the city centre, the former director of SSDN (now Learning Futures Strategist), while equally confident, is able to be more expansive:

'We spent months right at the start studying what made a good IT project,' says John Connell.

'We looked at what worked, what didn't work, and what had caused the failure of certain IT projects. The most important single factor is that they were top-down projects. Somebody somewhere had decided what was needed, and had then tried to create a system to do the job.'

Almost exactly the opposite approach was adopted for Glow.

'We took two years working with teachers and advisers from every local authority in the country,' says John. 'At the end of that time we had a specification that suited not just Learning and Teaching Scotland and the Executive, but virtually everyone with any knowledge of ICT in schools. That spec is essentially what we are working on to this day.'

'The key to a major project like this is to make sure you're delivering what your stakeholders want – by getting them involved from the beginning, by building them in with the bricks.'

Glow

What Glow will deliver, when it is rolled out in summer 2007 to schools around Scotland, will be such a rich variety of features for learning, teaching and management that classifying the system is by no means easy, says John Connell. 'There is nothing exactly like it anywhere else in the world.'

The most accurate – though not perhaps the snappiest – description of Glow is that it is a web-delivered learning platform which combines a 'massively integrated collaborative environment with a virtual teaching and learning environment, fully authenticated and delivered to every school in the country'.

Fortunately Glow will be easier to use than to classify. Sophisticated software and resources, which at present have to reside on individual computers, will be made available to all users through the web. It will be a unique national system.



'People in various countries around the world are doing some parts of what we are doing, such as learning platforms, virtual learning environments, email systems, videoconferencing,' says John Connell. 'But they are usually doing them as individual applications. The essence of Glow is the integration of all those functions into one package – which is delivered across the web.'

'That is the key. It means nobody needs a specific piece of software on their computer, other than a web browser. Pupils and teachers can get access from their homes, from the library, from anywhere they want, any time they like.'

Collaborative software

Web-based applications, such as those at the heart of Glow, are now widely regarded as the future of computing. They are a core technology in Web 2.0, a once nebulous vision around which consensus is beginning to emerge. Web 2.0 is about people and collaboration. It is a concept of the web as a platform which allows groups of individuals with no special computer skills to build creative communities, using sophisticated but essentially transparent technology.

Within Glow this web-based collaborative software is being developed from packages that are already popular in those schools that have used them for videoconferencing and voice-conferencing, and for working on joint projects with colleagues in other schools. At Anderson High School in Shetland, teachers and pupils have been exploiting the technology, in its original 'client-based' form (a copy on every computer), to nurture their global learning links.

'Our pupils work on laptops individually with other students and collectively in groups,' says depute head Stewart Hay. 'They share applications, video clips, material they have created. It is like having a virtual partner learner at another school, but this can be in Scotland, Japan or the Czech Republic.'

The advantage of this form of videoconferencing, in particular, is that it is peer to peer and very easy to use, says former pupil Honza Semotam: 'You just need a webcam, a microphone and a computer, and away you go.'

Virtual learning platform

Web-based collaborative software is one of three major elements of Glow. The other two are the core portal and authentication system, and the virtual learning

environment. Each of these, together with all its components, is currently being developed by Learning and Teaching Scotland and RM, and tested extensively by teachers and pupils.

'The virtual learning environment is like a big window on the curriculum,' says John Connell.

Through this window, teachers will manage materials specific to every class that they teach. They will assign, assess, check progress and return work to pupils, who will themselves be able to study the teacher's feedback through their own Glow home page.

Teachers and pupils will also gain access, through the virtual learning environment, to a rich and growing collection of searchable resources, produced by Learning and Teaching Scotland, local authorities and other organisations.

'A lot of authorities have developed fantastic educational resources,' says John Connell. 'We are encouraging them to share these. I'm confident this will happen more and more, as people see the enormous benefits of doing so.'

Selected resources on Learning and Teaching Scotland's existing website will be made available to teachers through Glow's virtual learning environment, as well as a collection of new content currently being procured by LTS. This includes digital material from Scotland's national collections, a vast collection of graphics to enhance classroom projects, a mediated daily news service for young people in English and Gaelic, and a powerful new language package, developed in collaboration with one of the world's leading experts in computational linguistics.

'Glow will provide lots of valuable material and resources for teachers and pupils as soon as it is launched,' says John Connell. 'Over the next year or two I expect to see an explosion of educational content.'

Training

While teachers have been closely involved from the beginning in the specification of Glow, and in testing its separate parts as they are developed, training in the use of the complete system, for the profession as a whole, is scheduled to start in April 2007.

'Around 600 people chosen by the local authorities will be trained by us as Glow mentors,' says John Connell. 'They will go back to the authorities to train the rest of the teachers. At the same time we will be making online training available to all.'

'Glow is a sophisticated and powerful system, but you will not need to be a computer expert to gain the benefits,' says John Connell. 'It has been designed for ease of use by pupils and teachers. It is fundamentally about learning and teaching.'



Further information

If you would like further information about Glow or copies of our other corporate profiles on A Curriculum for Excellence and Assessment is for Learning, please contact our Customer Services on **08700 100 297** or email enquiries@LTScotland.org.uk www.LTScotland.org.uk