Technology Strategy Board
Driving Innovation

Innovation **ideas**

SPOTLIGHT ON A CURRENT PROJECT #015

Learning to visualize the answers…

We've come a long way from 'chalk and talk' to e-learning – and although the traditional tools still have a part to play in the 21st century classroom, the way in which we learn in the digital age is moving on apace.

As new technologies – from cameras in mobile phones to Flickr and YouTube on the internet – become mainstream, a £2 million research project exploring new and innovative ways to deliver visualised learning is nearing completion.

The three-year SILVER project is developing interactive software through three prototypes, which use images, rather than text, to engage the user in a process of visual learning through interpretation. Each prototype explores a different subject in line with the school curriculum: the Suffragettes Movement (part of the Key Stage 3 Citizenship module), sustainable buildings (part of the Key Stage 4 Geography syllabus and new college diploma) and the subject of 'leadership' currently in the early stages of development and targeted at the training sector.

The aim of the project is to revolutionise the learning experience – making it richer, faster and easier for both students and educators. Students are given a brief introduction to the subject by the teacher before being challenged to use their interpretative skills to 'read' a particular subject by means of the visual aids.

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Instead of having text presented to them, students have to generate it for themselves from different sources. For example, they can select hot spots on an image of a suffragette being dragged away by the police and create their own caption via annotation tools like tagging.

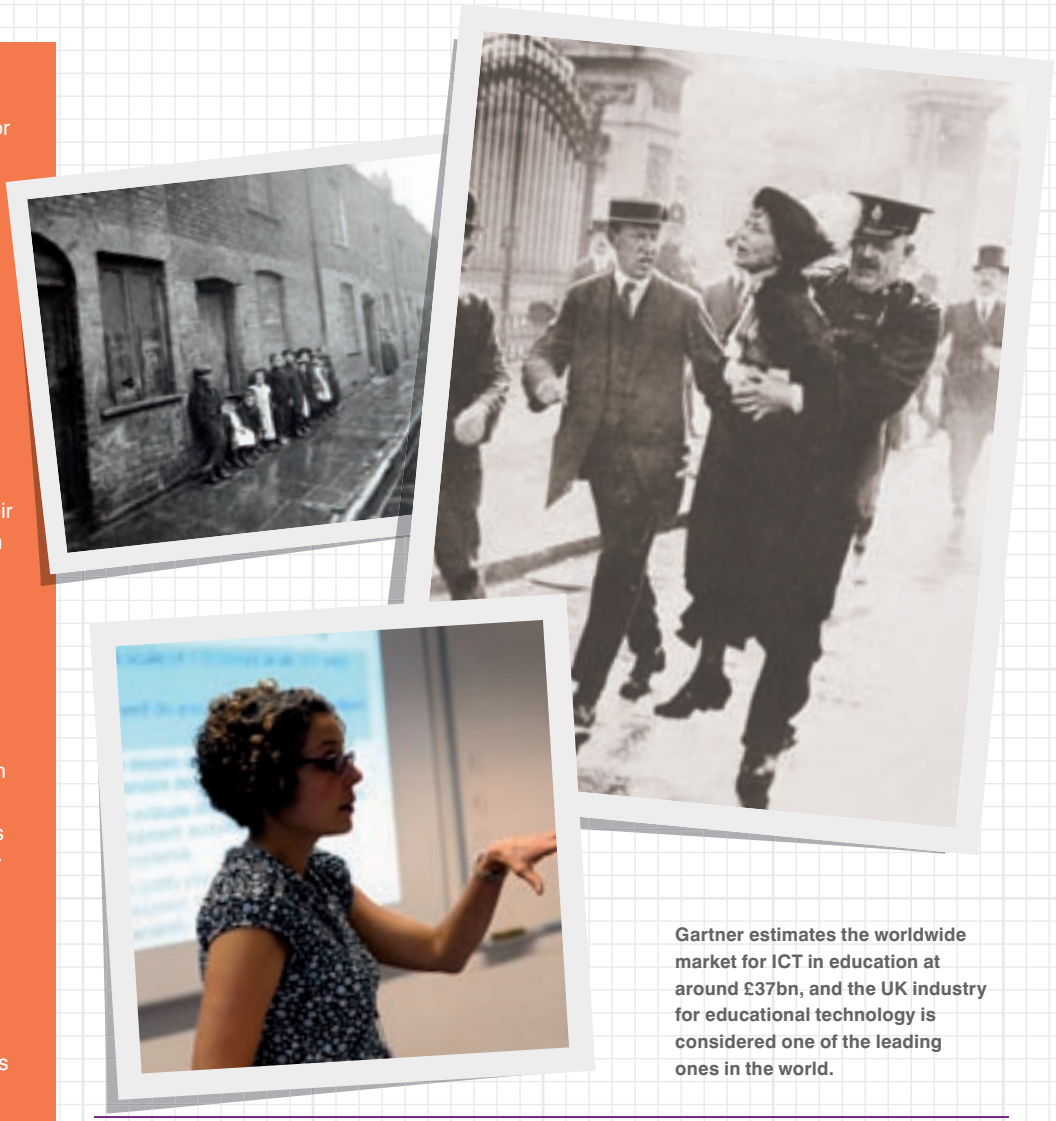
With the sustainable buildings module, students tag images and group them according to their suitability for a sustainable city. At the end of the exercise, they can compare their interpretation with their peers – as well as examining how an entrepreneur, environmentalist and a social worker might group their particular selection of images.

During this innovative process, students are encouraged to engage in a process of critical thinking. The guided reasoning engine helps them work through the tasks (especially good for distant learners) and allows both students and teachers to easily adapt the tasks to their own needs.

Students are supported by the provision of visual summaries which can reflect progress and learning by clarifying important aspects of the task and highlighting inconsistencies in their thought processes.

Funded by the Technology Strategy Board, project SILVER (standing for Semantic Interactive Learning Visualisation Environment Research) is being led by Bridgeman Education, a leading online resource for academic tutors and students, with the support of Lexara, its technology partner, and The Open University's Knowledge Media Institute.

It is expected to produce tools for a wide range of users - from art teachers to historians to corporate trainers delivering workforce training - and the consortium is encouraged by the feedback gathered via a series of focus group and classroom testing sessions.



Gartner estimates the worldwide market for ICT in education at around £37bn, and the UK industry for educational technology is considered one of the leading ones in the world.

'I wouldn't have got those responses from the kids from an image on paper.'

THE RESPONSE FROM ONE TEACHER

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Technology Strategy Board investment
£800,000

Total project cost
£2m

Project partners
Bridgeman Education (The Bridgeman Art Library)

Lexara – Technology partner

KMI (The Knowledge Media Institute at the Open University)

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