

# Learning with two Thunders

The University of Nottingham is the first UK customer to install the Thunder collaboration system. Paul Milligan visited the campus to see how the £600,000 devices are helping academics and students

**A**s one of the top 10 universities in the country, and one of the top 25 in Europe, the University of Nottingham has a reputation and position to uphold. To help achieve this it has become proactive in finding new technologies to aid teaching and learning for its 30,000-plus students.

One new piece of technology the university has invested in is the Thunder collaboration system from PolyVision. It is a multi-screen projected system, often referred to as a 'virtual flipchart' as it can show up to six large screens at once and is capable of showing a variety of content including web pages, Excel/PowerPoint files, video and pdfs, among others.

## In the Learning Lab

The purchase of two Thunder systems was facilitated by the ongoing investment of Nottingham's Visual Learning Lab (VLL). The VLL is a learning, teaching and research centre, which supports a range of visual learning projects and open access sites. It is able to invest in technology as it has become a Higher Education Funding Council for England (HEFCE) funded Centre for Excellence in Teaching and Learning. The HEFCE has so far provided more than £600,000 of investment in the VLL.

The VLL's main aim is to enhance student learning, and technical innovation is one factor in that. The VLL Core Team research four principal technology groups are: interactive whiteboards, videoconferencing, video editing and virtual flipcharts (such as Thunder).

Thunder is not the VLL's first foray into a-v technology. As well as having a long history of using videoconferencing, the lab recently used a ceiling visualiser to broadcast an operation back to the veterinary school from an animal hospital and

the pictures were sent down a videoconferencing line. As viewing space is limited during operations, it gave all the students a chance to get a close up look at what was going on.

A range of plasma screens were installed to help students see the procedures in detail. The footage is also archived on the web, so students can watch it again, come exam time. Touchscreen computer games have been developed to build skills for engineering students, using gaming technology to help learning.

The university has installed two separate Thunder devices. The first is a six-screen one installed in a classroom, with the emphasis on formal teaching/lectures with a class of students. The second is an eight-screen system, projected on a curved wall within the recently refurbished Hallward Library (on another campus to the first Thunder system), which students can use as part of an open-access area.

## Going beyond conferencing

So why did the University of Nottingham choose Thunder? 'We were looking for further applications that might enable us to do things we can not do with videoconferencing,' says Dr Do Coyle, who is one of two co-directors of the VLL. 'That's always had to be our benchmark, how can using the technology make things happen that we otherwise couldn't. We are not just experimenting with technology, because we are not a technical, experimental lab, it is about teaching.'

The two systems were installed halfway through 2007, but have since been modified and adapted.

'It seemed a good idea to work with Thunder to explore how it would enable us to get inside how people constructed learning,' says Coyle.

'We wanted to look at how, if you had several screens that can be seen at one time, that could help formulate arguments and whether it would enable



Using projectors and the PolyVision control system allows both

students to work better in small groups, to do things they wouldn't normally be able to do, because they could simultaneously see a wider view of ideas.

'That was it at its simplest. Rather than all the flashy visuals, stripping it right down to basics, how could students use that?' says Coyle.

Unlike some schools that use BECTA funding to buy interactive whiteboards just to use up the budget, there is a real sense at Nottingham that the product is bought because it fits an exact need.

The VLL has targeted three departments – out of 25 – to work with on Thunder. The School of the Built Environment, where the architects of the future are taught, is the first to benefit from a bespoke Thunder experience, with the Classics department to follow, then Media Studies and Drama.

'What we are looking at is: what is the potential of this kind of digital tool to enable people to work better, more effectively, more creatively, together,' says Doyle.

Each department is studied by the VLL and Thunder is adapted to meet the needs of its students to learn in a more creative and collaborative way.

For example, in the Built Environment department, students previously had to print out costly large photographs and drawings to work on for their critical assessments. Thunder cuts out the wait and cost of printing by saving the images as pdfs, and students can annotate them at will, like any digital document. The system also allows them to see multiple perspectives of the same building at once, not something you can do in PowerPoint, which was the old system.

In addition, Thunder can work as a marketing



students and lecturers to simultaneously consider a range of material from internal and external sources

## KEY FACTS

The University of Nottingham has become the first UK install of PolyVision's Thunder system, launched in June 2006.

Described as a 'virtual flipchart', the collaborative system uses a multi-screen projected display device to show a range of content – including pdfs, internet pages, video, Excel and PowerPoint files – and can link to videoconferencing and remote collaboration sites. The systems were installed by one of PolyVision's UK resellers, Questmark

- \* [www.questmark.co.uk](http://www.questmark.co.uk)
- \* [www.polyvision.com](http://www.polyvision.com)
- \* [www.visuallearninglab.ac.uk](http://www.visuallearninglab.ac.uk)

tool, as these facilities might tempt students to choose Nottingham over other universities without such technology. Thunder has already been featured in the universities' annual report as an example of cutting-edge technology and is shown to prospective students on open days.

As Professor Roger Murphy, also co-director for the VLL, points out, the system has a reach beyond the sites in Nottingham. 'The content is one issue, who it is bringing together is another. Our University is quite unusual in that it has recently developed campuses in both Malaysia and China. You could have a group of students in the UK, Malaysia and China all working together on the same project in Nottingham, using Thunder as the mechanism.'

To avoid the problems that affected some interactive whiteboard adoption in the UK, the university is making sure as many staff as possible are trained to use it. Regular lunchtime slots educate lecturers on how to use the system, and several members of the library helpdesk are trained if anyone wants to use the open-access system in the facility.

### Teething troubles

Launched amid much fanfare at InfoComm in Las Vegas in 2006, the product has struggled to make an impact in the UK. The University of Nottingham represents Thunder's first installation in this country, 12 months after the launch, so why the lack of interest?

There seems to be several factors contributing to its lack of take up. The cost being the main one, with a price tag of about US\$100,000. Others

issues include the closing of Thunder's only UK distributor Maverick and a lack of demonstration facilities in the UK.

Duncan Peabody, at PolyVision, highlighted other reasons as to why take up had been so slow. 'When we first started showing this to people, there wasn't a budget for collaboration, they had telephony or refurbishment budgets, but there wasn't one for collaboration, so there was no sector it fitted into easily,' he says.

'The last 12-15 months has been a big learning curve. When we came to market, it was a totally closed solution. There was a list of kit you had to buy and there was no deviation from it.'

As an example, one potential customer for the system already had AMX room control installed throughout, so it was unwilling to install the Crestron kit that came with the system. Others were unable to buy as their installed audioconferencing wasn't from Biamp (the chosen audio supplier) or the servers were from a different manufacturer to the company standard.

The future is looking slightly brighter in the UK for PolyVision. Three or four resellers will take the place of one distributor to push the product, and two more demonstration sites are in the process of being set up (in London and Glasgow).

Another problem was the early description of Thunder as a 'virtual flipchart'. While catchy, it didn't do the system justice and made it seem facile, especially with the cost involved.

If people see what the system is capable of achieving at Nottingham and the new demo rooms around the country, then Thunder may finally fulfil that early promise first cited at InfoComm. ■