



Academy brings cameras into class

Teachers at a Birmingham school are watching themselves take classes to boost their performance using ONVU Learning's new video system. **Josh O'Neill** saw the hardware in action at a live media demo



A leading university technical college that puts innovation and technology at the heart of its educational mission for students is pioneering a new high-tech approach to supporting the development of teachers.

Aston University Engineering Academy (AUEA) in Birmingham is the first school to install state-of-the-art video cameras in all its classrooms to help teachers enhance their pedagogical methods using the LessonVU system developed by London-based start-up ONVU Learning.

The ed tech company, which is part of ONVU Technologies Group, launched LessonVU just 11 months ago and has already conducted trials at 10 UK schools, including AUEA. It aims to get the system into more than 200 UK classrooms by the end of next year and to launch in India, where it already has an office, next month, with the goal of achieving a similar take-up there.

The 360° cameras, which are smaller than a smoke alarm, have been embedded into the ceilings of AUEA's 28 classrooms, where super-sensitive microphones of a similar size are fastened to the walls. Together, the devices capture a teacher's every move and word to produce a video of a lesson in its entirety, that is accessible only by the person who delivered it and can then be used as a point of reference and for self-reflection, either alone or among colleagues.

At a live demonstration of the system mounted by AUEA in July, principal Daniel Locke-Wheaton said it adopted the system to give teachers "ownership and control" over their own development and help improve teacher retention rates amid a global "recruitment crisis".

Locke-Wheaton said the system eliminates issues that can arise when a teacher's performance is observed by a colleague, which are induced by the "Hawthorne effect", whereby teachers modify their behaviour because they are aware of being observed. It also enables lessons delivered by newly-qualified teachers to be observed - with their permission - from afar, saving time and resources.

"This all started around eight-to-nine months ago when we started exploring how we can invest in staff, how training can be done differently and, most importantly, how we can get staff properly reflecting on their time in the classroom," said Locke-Wheaton.

"When reviewing the technology, I was blown away by the simplicity and effectiveness of the system. As educators, we reflect all the time. But [LessonVU] enables staff to review things very quickly, saves time when previously they would have had to visit and observe other lessons, and it saves [on] planning cover lessons."

Teachers can even link smart watches to the system, allowing them to place a flag on the video timeline with just a tap of the wrist, should they wish to timestamp a particular point in a lesson.

Locke-Wheaton said the system was initially met with scepticism by some staff due to a "Big Brother effect", whereby they were wondering whether he was going to be sitting in his office watching them using the system.

"So firstly, it was about developing trust and making staff realise they own the data and no one else can access ►



David Chapman, vice-principal of AUEA, demonstrates LessonVU's zoom capabilities

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► it without permission,” he said, adding that students and staff have the right to opt out of being recorded and the system cannot be used retrospectively for disciplinary purposes.

“We’ve had champions who’ve stepped forward and grabbed this by the horns, and success stories have also come from unexpected staff members,” he said. “Some quiet teachers who don’t usually voice experiences among the main staff body are now showcasing and sharing methods and examples.

“NQTs naturally pick it up because they’re still in that training mindset and they’re regularly reflecting and learning. Also, lessons will go badly sometimes, and that’s okay. The ability to look back and ask: ‘Where and why did this go wrong?’, reflect on that, and, most importantly, improve for next time, is invaluable.”

AUEA, which is one of 49 university technical colleges in the UK, has invested in ONVU Learning for a period of one to two years, funded “up-front by outside partners”, Locke-Wheaton said, without divulging backers’ names or specific financial details.

Although the RRP of £4,500 plus VAT per classroom includes developments and support services, the overall cost of implementing the system across a school the size of AUEA is high. So how can a school measure the return on investment?

“That’s always the difficulty with e-learning: how do you directly link the technology to improvement in outcomes?”, said Locke-Wheaton. “But I think in 24 months we will see tangible improvements in teaching quality, learning outcomes and through the staff voice.”

“I don’t think you can put a price on staff CPD [continuing

professional development],” he said, adding that AUEA has carved out a weekly two-hour slot dedicated to staff reflection and development. “We don’t force members of staff to watch their lessons back on a Sunday, but I know some [schools] who do.”

Locke-Wheaton said LessonVU’s discreetness is a major advantage over competitor systems. “Successful technology should be behind the scenes to scaffold the already effective teaching and learning,” he said. “It should not be a bolt-on; it should be integral.”

Although the cameras constantly record, if a teacher does not access or save any of their footage, it is deleted automatically within a month to satisfy Europe’s General Data Protection Regulation (GDPR).

During a networking break at the event, Andy Goff, director of ONVU Learning,

who is a former teacher, argued that it can help schools to address a “global teacher deficit” by supporting the training and development of good staff.

“If we look at UNESCO figures, we currently have 2.7 million teachers on the planet,” he said. “That’s not enough and we’re struggling to recruit. By 2020, there will be a requirement for 20 million, and in 2030, a need for 30 million.

“Teachers are a very valuable commodity, especially those with good subject knowledge in STEM [science, technology, engineering and maths]. Recruiting, training and developing them is, therefore, priceless.”

The ONVU Learning system also breaks down geographical barriers, as clips can be shared via the platform regardless of proximity, he said, adding that it may be particularly useful

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Daniel Locke-Wheaton, principal of AUEA, shares its experience of using LessonVU

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for schools with overseas branch campuses.

Chief marketing officer Richard Morgans said ONVU Learning, which also has offices in the US and Hong Kong, is eyeing “significant international growth” even though “revenues are relatively flat at the moment”.

The group has ambitious plans in India, where it hopes to tap the country’s 300,000-odd middle-range private schools, and Hong Kong, Singapore, Malaysia and the US are also in its sights. “India’s a great market and we’ve had significant interest,” he said. “There are opportunities not just in [staff] CPD, but also surrounding the safety of children in classrooms.

“I think we’ll see profits in 2019, as this has been a year of embedding systems, getting evidence, getting partners and getting feedback. We’ve researched the market opportunity now and we see tremendous growth.”

Morgans said the privately-owned company has been funded

to date by investors who sit on its board, but declined to say how much has been raised so far.

Goff said that the firm is open to deals too, “if the shoe fits”. “We’re open to what’s appropriate at the time,” he said. “We hope to grow well on our own legs, but if we approach a time where we can grow quicker by taking [external] investment, then clearly that’s what we’ll look to do.”

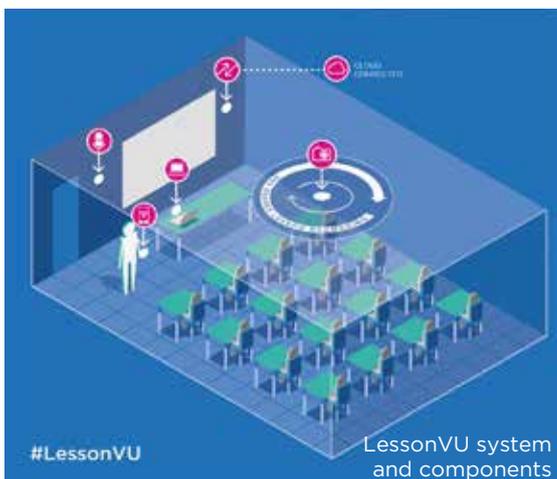
In the meantime, the group will look to grow its business globally, develop its technology and reduce costs, both operationally and in terms of product pricing. “We don’t know exactly what price it will go down to, but clearly we’re chasing world domination of classrooms,” said Goff. “It will get smaller, it will get cheaper and it will become more efficient.”

Key markets will be “countries with governments looking to step forward in what is now the new arms race in education,” said Goff, adding that the group “by no means” rules out China and other complex markets that require a partnership structure in order to set up shop.

“We will work with the right people, ethically, in the right locations,” he said. “Any market with an education system offers us an opportunity.”

ONVU Learning is also devising a new leasing structure for its services, “as we are increasingly seeing that schools don’t want to buy equipment up-front,” said Goff. Instead, “they want to effectively rent it on an operational service contract”, allowing for greater flexibility.

Ultimately, “it’s important for us to be judged on the number of classrooms, not schools”, said Goff, adding that the former more accurately represents user numbers, as not all schools choose to deploy the system in every classroom. “If our partner schools attribute achievements and improvements in things like OFSTED inspections to ONVU Learning, then that’s true success for me,” he said. ■



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