

# Top Marks for Tablets

## Faculty at the City of Liverpool College use Intel® Atom™ processor-powered Windows\* 8 Pro tablets to teach more efficiently and engagingly

Mobile computing has transformed our lives, both at work and at home. Most young people now see their laptop PC or tablet as an essential part of their educational toolkit, and they expect their teachers to use these technologies too. The City of Liverpool College is one of the first educational institutions in the UK to equip its entire teaching staff with Microsoft Windows\* 8 tablets in order to help them meet this expectation while delivering more productive and inspirational instruction. The devices have transformed teaching and assessment, for example enabling teachers to film student presentations and boost the grades of those who struggle with written work.



“Combining Microsoft Windows 8 with the Intel® Atom™ processor was a no-brainer for us. Intel® technology gives the great performance that we need to run our Microsoft applications, no matter what the device. Sure enough, the tablets didn’t disappoint in terms of computing power.”

Ken Ryan,  
Head of IT,  
City of Liverpool College

### CHALLENGES

- **Multiple devices.** The college needed to equip lecturers with Microsoft Windows-based tablet PCs that supported all core applications and programs as well as IT network and support requirements
- **Complex processes.** It needed to enable staff to easily and quickly access core systems from the classroom, while keeping fleet management hassle-free
- **Learning barriers.** Teachers needed IT resources that would support and enhance, rather than hinder, teaching and learning activities

### SOLUTIONS

- **The right tablets.** Lenovo Tablet 2\* devices powered by Intel® Atom™ processors and running Microsoft Windows 8 Pro were purchased for 600 lecturers
- **Windows\* platform.** Microsoft Windows 8 Pro operating system enables enhanced security and easy fleet management, using the new fluid-touch interface
- **Ongoing training.** Lunchbyte sessions inspire all lecturers to drive value from the college’s tablet investment by learning how to use technology in the classroom themselves

### IMPACT

- **Efficient teachers.** Lecturers save time with in-class access to the student attendance tracking system and the ability to edit documents on their mobile devices
- **Interactive teaching.** Teachers are no longer tied to desktop PCs within the classroom, but can interact directly with students
- **It just works.** Tablets run all key applications and are fully compatible with other hardware, keeping teachers connected to the college network and educational content at all times
- **Richer learning.** Teachers can video students’ presentations and course discussions to help those who struggle with written assessment to improve learning rates and boost grades

### Making an impact in the classroom

The City of Liverpool College offers a wide variety of further education courses to over 16,000 students in the north of England. It’s a busy environment, with students and lecturers constantly on the go, trying to keep up with hectic schedules and multiple work deadlines.

The top priority for the college’s 1,200 staff is always delivering the best quality lessons. Lecturers want to reduce in-class administra-

tion and maximize teaching time while giving themselves and their students immediate access to all the educational content and programs they need. Many teachers used tablet devices to help them do this, but the variety of models used raised complications for both the staff themselves and the IT team supporting them.

Ken Ryan, head of IT at the college, explains some of the issues: “Staff were choosing whichever device they wanted, so we had

# UK further education provider empowers lecturers to innovate in the classroom with Intel® Atom™ processor-powered tablets



Lecturers help students learn faster and improve results with mobile devices to film and review verbal assignments

On-the-fly document editing and access to college network enables teachers to enhance lesson quality with Intel® Atom™ processor-powered devices

a range of operating systems and features to contend with," he says. "Our corporate system is Microsoft Windows-based, and we found it hard to manage devices that were based on other operating systems. We couldn't keep them properly updated with security patches, which was a security vulnerability. It was also a complex process getting new users or devices linked up to our network and systems."

Ryan and his team started to consider providing the college's 600 teaching staff with tablets that met the necessary technical requirements. In addition to making the IT support team's life easier, the aim was to enhance the user experience for the lecturers themselves.

"Our staff want to work as effectively as possible, and to deliver the highest-quality lessons and lectures," explains Ryan. "But they often struggled with not having the most appropriate technology at hand." As an example, he explains that the college's registration system is kept on its central internal system, and staff need a computing device to access it. In many teaching environments, such as dance studios, it is not possible to have a desktop PC in the room, so teachers would have to note attendance by hand and then update the system later – a time-consuming and inconvenient solution.

Even in more traditional classroom environments, relying on a static desktop PC could create a barrier between teacher and students, since the teacher needed to stay at the front of the class to deliver a presentation and could not interact directly with individual learners. Teachers who tried to solve the problem by bringing in tablet devices often found the model they used would not run core applications like Microsoft Excel\* and Microsoft PowerPoint\* and so they could not edit the documents they used most frequently.

"We needed to address all these user experience issues as well as our own technological concerns," says Ryan. "Since we were planning to invest in a large fleet of tablets,

we needed to make sure we got the best possible value from the new technology."

## A no-brainer

Knowing that only a Microsoft Windows-based device would meet everyone's needs, the college chose to purchase 600 Lenovo Tablet 2 devices, powered by the Intel Atom processor and running Microsoft Windows 8 Pro. "Windows 8 Pro gives us a better level of encryption as well as the ability to add new devices to the domain and apply group policy very simply," explains Ryan. "It's a compelling corporate solution, since it enables network log-on, it connects easily to other hardware through its USB and HDMI ports, and it runs the Microsoft Office\* applications that our staff are familiar with and rely on, like Microsoft Outlook\* and Microsoft Lync\*."

He continues: "Combining Windows 8 with the Intel Atom processor was a no-brainer for us. Intel® technology gives the great performance that we need to run our Microsoft applications, no matter what the device. Sure enough, the tablets didn't disappoint in terms of computing performance."

The solution was implemented with support from local IT solution provider Gardner Systems, which assisted with the hardware selection and roll-out, and by Softcat, which supplied the tablets themselves.

## Sharing teaching innovations

Following distribution of the new devices, the college set up an ongoing training initiative called Lunchbytes to inspire teachers to make the most of their new resources. Internal experts work with the IT team to develop content for these sessions, which help share best practices and ideas for using the tablets from around the college. "This knowledge sharing is essential in encouraging adoption among all teachers and lecturers," comments Ryan. "Some are inevitably more comfortable with new technologies than others, and we need to make sure we're helping everyone get the most value from

the devices. At the same time, many staff members are finding ways to use the tablets that we'd not thought of before, so we need a platform for them to tell others and share the benefit."

### Making more time for students

In the few months the tablets have been in use, they have already made a significant impact on teachers and their students. "One of the first use cases we had in mind was updating the register at the beginning of each class," recalls Ryan. "Indeed, we've seen a significant increase in registration tracking rates in our central database as staff can now update it in real time, and the barrier of having to remember to go and do it in the staffroom later has been removed. It's saved them a lot of time that they can now spend on working with students and preparing even better lessons."

Document editing is now much simpler, since lecturers can update their presentations on their tablets. This has worked so well that as a next step, the college is considering removing all teacher desktop PCs from its classrooms, replacing them with a tablet docking station and an HDMI cable to connect their tablets directly to electronic whiteboards.

### Filming assessments for stronger results

Meanwhile, one of the more innovative lecturers at the college has already come up with an entirely unexpected usage model, which he expects to have a very positive result for his students. John Bainbridge, who teaches in the Business Studies Department, had been looking into ways to record videos of student presentations.

"We initially thought about obtaining some video recorders," Bainbridge recalls, "but then a light came on and we realized we could use the tablets. We had it all set up in just a couple of days, and we now have 70 very happy students. Not only has it inspired them to improve by being able to watch them-

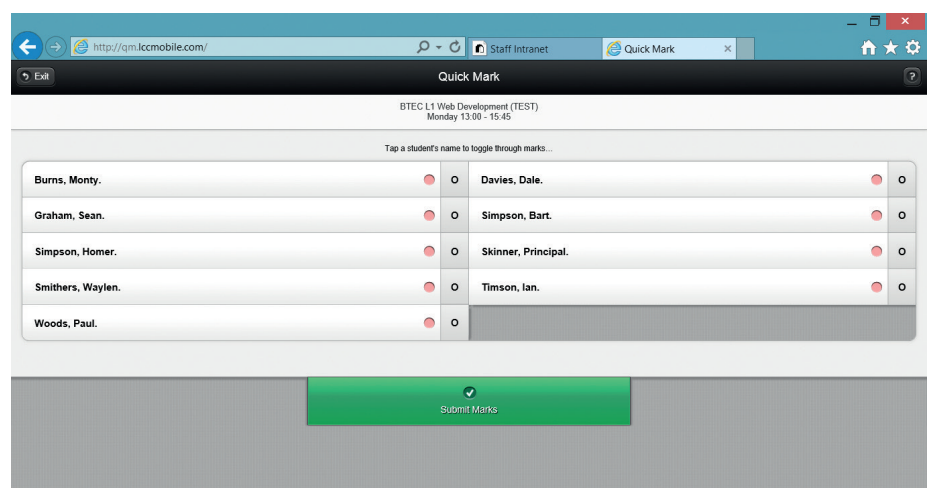
selves back, but we believe it will drive an improvement in grades as well."

He goes on to explain that it is not unusual for very knowledgeable students to struggle in written examinations. "They know the information, but find it easier to deliver it verbally through presentations and discussion," he continues. "By having video evidence of their knowledge which we can submit alongside written work, they have the chance to get a higher grade. Some students who were going to fail will pass."

### Interacting with students, all day long

Besides these specific examples, lecturers across the college are seeing an improvement in the quality of teaching that they can deliver with the Intel technology-powered devices. With tablet in hand, they can move around the classroom and interact directly with students while still controlling their presentation. They can even give the tablet to a student and let them take control of certain aspects of the class, ensuring they remain engaged and motivated and providing a more direct and personalized learning experience.

Advanced battery life means lecturers' tablets can stand up to a long day in the classroom



The registration tracking application is accessed through tablets in class

The devices have also contributed towards building a stronger rapport between students and teachers in many cases. "A lot of our students have their own mobile devices, and they use them in lessons and for homework," says Ryan. "When they see their lecturers using similar technology, it makes it easier for them to identify with what they're being shown. It keeps everyone on the same wavelength."

Of course, Ryan and his team are also enjoying having the new tablet fleet in place. "We're very pleased with the specs of the tablets we've chosen," he reflects. "Besides the strong performance and the compelling touchscreen functionality, it's great having a USB and HDMI port on the devices so they can be easily connected to keyboards, projectors and other accessories. The battery life is also fantastic. Even with heavy use, the tablets last all day, which is important when you need them in every class and you want to be free from wires and cables, including the charger. Some devices I've seen have no more than one and a half hours of battery life and that would be no good to us."

### Making the most of resources

The success of the tablet deployment at the City of Liverpool College has inspired Ryan to consider further uses for the devices. In addition to replacing staff PCs across the organization with tablets, he is also considering the possibility of further reducing his hardware costs over time by making more use of Microsoft Lync. "Everyone with a tablet has this application installed on it," Ryan explains. "So I'm considering dispensing with staff telephones and just having everyone use their tablets to make calls as well. We've piloted this approach and it seems like a viable option. Lync offers a wide range of collaborative tools – from instant messaging to in-class polling – so we can offer staff a suite of tools through a single application as well as helping them work more efficiently by being able to see if the person they're trying to contact is available before calling them."

He concludes: "The work we've done with Intel and Microsoft so far is really exciting, and I believe it's helped position us as one of the UK's most innovative users of IT in education. We look forward to benefitting further from their expertise and technology in the next phase in our mobile computing journey, and helping our college community both teach and learn more effectively through their tablets."

### Lessons learned

The introduction of innovative technology can be hugely exciting, and brings with it numerous opportunities. However, it is essential to ensure that the technology is well matched to user needs, and that the target users understand how best to make use of it. The City of Liverpool College approached this challenge carefully, not only ensuring that it worked with leading technology providers to craft the right solution, but also running dedicated training to develop its staff's IT skills on an ongoing basis.

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