AFFORDABLE ACCESS TO EDTECH

PRACTICAL STEPS FOR OVERCOMING SCHOOL BUDGET CONSTRAINTS AS TECHNOLOGY ADVANCES ACCELERATE

A Wesleyan Bank white paper



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Introduction

From standard classroom aids to specialist equipment and applications that enable greater inclusivity, schools have a fundamental need to keep pace with technology. They are preparing next generations for a digital world and workplace, they need to maximise pupils' learning across all abilities, and they need to keep attracting pupils in an education sector that is increasingly competitive – not just for student populations, but also for funding.

Although the Government has pledged extra financial support for schools, major shortfalls remain which means education establishments need to be strategic about how they use, and demonstrate a return on, their budgets. In July 2017 it was announced that schools in England would be allocated an extra £1.3 billion over two years, as Westminster responded to pressure from campaigns over funding shortages. While this has been seen as a welcome if overdue measure, the new cash being allocated will be taken from elsewhere in the education system. Indeed, according to the Institute of Fiscal Studies, the funding pledge actually works out at a real-term freeze on school budgets for the next two years¹, and cuts over four years². So schools are unlikely to feel better off.

Meanwhile, school technology budgets are falling. The average ICT budget for 2017-18 is forecast to be just £13,800 for a primary school, a 4 per cent decline year on year, and £58,230 for secondary establishments, a 7 per cent reduction, according to the British Educational Suppliers Association (BESA)³.

Maintaining strategic technology spending in a climate of cutbacks

The challenge for schools is to ensure these modest and declining funds are spent on technology that adds the most value for pupils. This is a not insignificant feat, given the widening array of digital options and the pressure on schools to stay relevant and respond to the way today's children learn. While no teacher wants to compete with smart gadgets for pupils' attention, the ideal scenario schools must work towards is one where technology works hand in hand with traditional teaching - to bring content to life, allow pupils to explore a subject further, or to keep children connected when they can't be at school or are doing their homework.

Technology can help to make learning fun too, for instance through 'gamification'⁴. In more specialist scenarios, newer technology such as virtual reality can bring locations and situations to life in ways that haven't previously been possible without experiencing something first hand. Immersive technology can be transformative in helping pupils to understand scientific principles such as Newton's laws of motion or weightlessness⁵. It also has potential for children with special needs: a child with autism could take a virtual trip to a museum to prepare them for the real thing, or allow a wheelchair user to experience an activity they might otherwise not be able to participate in. Similarly, video links or class robots offer a way for bed-bound pupils to be present in the classroom remotely, so they don't become isolated or fall behind in their work.

With so many ways that technology can add value to the learning experience, schools must find a way to maintain spending. If they don't, they risk trailing behind modern practice and missing out on opportunities to boost learning potential, while leaving themselves vulnerable to poor ICT performance (from faulty or old equipment, or slow or intermittent connectivity), and inadequate network or data security. Security is a particular concern for schools which manage a lot of sensitive and personal data, especially with strict new regulations coming into force in May 2018.

The following white paper highlights the latest technology innovation in education as well as new improvements to established teaching tools, and the impact such aids can have. It also sets out the risks schools need to guard against by maintaining ICT investment levels, before going on to provide practical advice about how schools can bridge the gap between available public funding and the amounts needed to keep their digital resources, security and skills current.



Accessing all options – the latest tools set to transform teaching in 2018

With the great many challenges faced by schools to deliver results, cater for growing classroom sizes and diversity of ability, technology offers a lifeline – a means of achieving more for every pupil, and of personalising the learning experience⁶. As mobile devices become smarter and more intuitive, connectivity grows faster and more reliable, and applications become more creative and diverse, schools have an opportunity to make learning more rounded, engaging and enjoyable, which in turn can improve the way children feel about school and their progress, as well as their actual results.

'EdTech' (educational technology) has become as much a phenomenon as 'FinTech' (banking and financial services tools and apps), in this case due to the perceived potential for transforming the channels through which learning happens. Estimates suggest that this industry could be worth £129 billion by 2020, as start-ups continue to create toys, games and other inventive learning apps using the latest technology⁷.

Gamification

One of the biggest trends in EdTech is gamification. As the name suggests, this is about making games and quizzes out of lesson content. Kahoot! is one of the best-known learning apps adopted in schools, used to inject new fun and enthusiasm into essential subjects such as Maths and English which some pupils can find challenging. Used by more than 50 million people internationally, Kahoot! allows teachers to choose or create games and quizzes – on anything from times tables to the world's flags - to be displayed on a shared screen and make lessons more interactive and engaging for all pupils. Numerous other lessontransforming apps are available⁸.

Mobile technology

The fact that children use technology so readily in their personal lives, and by choice, means there are high levels of acceptance as well as a growing expectation to continue this experience in school. A 2017 study⁹ across 650 primary school and nursery school children in Belfast assessed how mobile devices influenced pupils' learning performance over a two-year period. It confirmed that when children are able to use handheld devices such as iPads for learning purposes they are highly motivated, with boys particularly showing greater enthusiasm when using digital technology to produce pieces of written work.

Audio-visual equipment

Interactive whiteboards were a big leap from traditional chalkboards and class projectors, but things have moved on again and these screens are now being eclipsed by touch-based displays – billed as the next generation of front-of-class teaching platforms¹⁰. For the teacher, a classroom touchscreen is like having a giant tablet on the wall – one that pupils can use intuitively too. They're also more environmentally-friendly than projectors. Digital displays, meanwhile, can be a great way to broadcast up to date notices in high-traffic areas of schools such as reception or outside the main hall, not least because they can be updated centrally in real time to convey the latest information.

Video conferencing

Video conferencing is a powerful tool in bringing pupils face to face with people in other schools and different situations and locations around the world, overcoming distance and forming closer connections where it is important for children to see, hear and interact with people first hand¹¹. For rural schools, or those in hardto-reach regions, video conferencing makes it possible to access subject experts who might otherwise struggle to come and speak at an assembly or special class. Year six pupils from Churchfields Junior School in the UK ran their own project during the Rio Olympic Games to help teach English to Brazilian children via video¹². As a school, Churchfields estimated that its pupils had travelled a total of 317,000 virtual miles in the space of a year, thanks to the power of video conferencing.

Internet conferencing tools such as Skype make it easier and more affordable than ever for schools to benefit from live video links to remote locations¹³ – as long as there is a high-performance internet connection to ensure a good-quality experience.

Virtual reality

BT's Tech Factor 2017 competition revealed that virtual reality headsets are rapidly scaling UK schools' technology wish lists¹⁴. Although tablets or laptops remain the most sought-after ICT equipment, the number of schools asking for virtual reality technologies



had increased threefold from 2016, as a clear trend for using VR headsets to enhance learning has emerged. This in turn is placing new demands on schools' computer hardware, which needs faster processing and higher-spec memory to cope with VR graphics.

Google 'Cardboard' VR technology is helping to bring down the cost of VR for schools, and introducing them to the possibilities of new dimensions in learning. The basic £15 cardboard unit can be inserted into a smartphone, allowing users to view and feel they are part of a range of virtual environments¹⁵, allowing schools to experiment with the technology. As a sign of what's to come (if the right funding can be made available), a school in China last year opened a fullyfunctioning VR 'classroom'¹⁶, paving the way for pupils to immerse themselves in and try out a whole range of situations or get a good feel for places too far away, dangerous or impractical to visit in person.

Robotics

Early use of robots in schools have been largely to give children a basic understanding of coding, but as the technology develops robots could also become teaching aids, or proxies to attend class on behalf of children who, due to illness, are forced to miss a lot of school. JESS, a not-for-profit British International School in Dubai, uses a Swivl robot to capture some science lessons and upload the content for students to re-watch at home¹⁷.

Artificial intelligence

There are many facets to artificial intelligence in a school context – both as a tool pupils can use to teach machines to execute tasks, as part of computer science classes; and as a means of adapting teaching to suit the individual child, by getting to know how they learn best. In 2017, CENTURY technology's personalised learning platform scooped the Best Use of AI in Education prize at the Global Annual Achievement Awards for AI. The platform uses algorithms that get to know a student the more they engage with it¹⁸.

Al was a topic that attracted much interest at BETT 2017, where Martin Hamilton, a futurist at Jisc, which provides digital solutions for UK education and research, gave a talk on the technology's potential in education. As he noted, many children already use AI in the form of personal assistants like Amazon's Alexa outside of school to find answers for their homework .

Teachers' aids - planning & reporting

The days of planning lessons on paper belong to the past,



as technology promises to save time and keep records to save reinventing the wheel ad infinitum. And if this can be shared easily, the benefits multiply. Tools such as Classroom Monitor, which offers teachers an easy way to record assessment, make sense of data and create meaningful reports, can help teachers to link plans with lesson objectives, and find evidence for their usefulness²⁰.

Data & analytics

One of the huge yet often overlooked benefits of increased technology use is the ability to capture, analyse and report on school activity, learning progress, and other more subtle trends. As long as schools have the necessary controls in place to protect individuals' privacy, and restrict access to those with appropriate privileges, they potentially have great scope to understand pupils' performance at a degree not previously possible, thanks to the routine capture of data as use of technology increases in schools²¹. From predicting student wellbeing, to identifying gaps and opportunities, the ability to track the trends in systematic data being captured offers schools a broad spectrum of potential benefits²². As AI becomes more commonplace in education (see above), data's perceived



value will continue to increase.

Data technology companies, meanwhile, are keen to promote data science as a new strand to ICT teaching in primary and secondary schools - as a departure from coding as the main path for early learning in technology²³. The idea is to use computer science and the on-demand power of cloud computing to increase children's interest in and aptitude for asking big questions and solving real-world problems through applied use of technology and data – skills that will be in strong demand when today's pupils enter the world of work.

Technology as a competitive differentiator

By the time pupils are choosing further and higher education options, and looking up peer reviews online, the spec of each learning institution's technology, wifi coverage and internet performance increasingly has a direct bearing on the college or university they select²⁴. In 2017, Durham University won the top accolade for campus wifi, based on student feedback, which it is now using in its promotions to attract future undergraduates²⁵.

In schools, huge variances in technology facilities and

learning opportunities are becoming a key factor in parents' choices of schools too. This is because they want to expose their children to relevant, employable skills from the earliest opportunity, and because they want to maximise their children's opportunities to continue learning outside the classroom – through connection into online resources, for example.

Research published in September 2017 found that many 11 to 17-year-olds are being restricted from being able to learn about the latest technology during school time²⁶. The study, commissioned by the Baker Dearing Educational Trust, a charity which promotes and supports University Technical Colleges, found that over two thirds (67 per cent) of secondary-school age pupils currently have no opportunity to learn about the latest technology in the classroom. When they were asked about the technology skills they would like to learn, they most commonly cited: building apps (mentioned by 45 per cent), creating games (43 per cent), virtual reality (38 per cent), coding (34 per cent), and artificial intelligence (28 per cent).

Meanwhile, almost one in four children (24 per cent) said they felt uninspired to learn at school and just under a third (32 per cent) felt they were more knowledgeable than their teachers in technology. With the growing emphasis on inspiring more young people to take up STEM subjects²⁷, this situation is unsustainable, so schools really need to be investing in tools and skills to inspire the next generations of technologists and problem-solvers.

The risks of reduced ICT investment: slow performance & security breaches

Schools that fail to maximise their ICT budgets risk not only limiting pupils' learning opportunities, but also restricting what pupils can achieve in the classroom – because devices and connectivity are not fit for purpose. As devices become smarter and more powerful, and the range of online resources increases, education providers need to keep investing to maintain performance and take advantage of all of the opportunities, especially those involving live connections and digital collaboration²⁸.

Another major risk of letting ICT investment slide, is failing to comply with regulations designed to safeguard sensitive data, as cyber threats grow and become more sophisticated. Because of budget pressures, the public sector is particularly vulnerable to risks associated with out-of-date technology. In March 2017, the medical records of more than 26 million patients became the subject of a major security breach amid warnings that the IT system used by thousands of GPs was not secure²⁹. Two months later, the NHS fell victim to a devastating cyber-attack which saw systems frozen, leading to cancelled surgery because medical staff could no longer access patient appointments or current medical records³⁰. In August, there was a further crisis when the personal details of NHS employees were breached³¹. The UK education sector has suffered a number of breaches too over the last year³². In December, parents of pupils at a UK private school were duped into paying hackers fake school bills, to the tune of several thousand pounds³³. These incidents provided a sobering reminder of what can happen when public sector ICT is not kept up to date, and holes in security start to appear.

New EU regulations, which will come into force in May 2018 and will still apply in the UK despite Brexit, will place new pressure on schools to secure sensitive data held on their systems. If they fail to comply with the new General Data Protection Regulation (GDPR) and people's personal data falls victim to a security breach, they risk public exposure as well as hefty financial penalties³⁴. Worryingly, the majority of schools are not prepared for this, so must now pull out all the stops to bring their systems and security measures into line.

Schools need to teach pupils about cyber-security, too, to prepare them for the real world and potential job opportunities. The Government has taken measures to drive this, recognising that today's children will one day be the country's defenders of security³⁵. But all of this relies on schools being up to speed with the latest threats and protection measures, which demands an investment in appropriate staff training.

The most effective approach to cyber-security is prevention rather than reacting to a breach once it has happened. By deploying advanced firewalls, intrusion prevention solutions and stricter network access controls, schools can add additional layers of security to their wifi network using more than simply a password. Leading software systems also enable schools to create and manage users, restrict their permissions and assign individual user log-ins to better safeguard their data. It is also important to keep antivirus and anti-malware software current, and have a clear policy for staff mobile devices, to ensure that the school's infrastructure has no weak points. Given that UK pupils now spend over 50 per cent of classroom time engaging with IT, many teachers acknowledge that it has become more paramount for them to be receiving continuous professional development into all aspects of data security. In a BESA survey, 49 per cent of secondary school teachers admitted they needed guidance around e-safety issues³⁶.

Prioritising spending to maximise value

When schools do invest in technology, the benefits they see are tangible and wide-ranging. At a fundamental level, they can be confident they are compliant with the latest security standards and maximising the performance of their systems.

Cutting-edge developments in education technology, meanwhile, "have the potential to transform the way in which classes are taught, pupils are assessed and in which schools are managed," according to BESA³⁷. Parental and community engagement is taken to another level, and pupils can explore the entire globe from within the classroom walls like never before.

But this is only possible if schools have adequate access to the internet, BESA notes, warning that "only



44 per cent of the UK's primary schools say they are currently well-resourced with broadband, meaning that millions of pupils across the UK are currently being denied access to the transformative potential of education technology."

Market analysts have suggested that schools can make their budgets go furthest by embracing managed hosted or cloud-based solutions for core systems such as office systems, email and management information, prioritising spending on their network so that they can access the latest services without the need to refresh their entire IT estate³⁸.

With a robust, high-speed, fit-for-purpose network in place to connect school users to the internet, schools can access a wide range of rich, state-of-theart applications on demand, without having to buy expensive equipment and software licences. This means they can put more of their equipment budget towards portable computers, tablets and digital classroom screens, and invest in more robust cyber-security.

Or schools could start to be more creative and start tapping into some of the newer technology – from virtual reality headsets and robots operated by



artificial intelligence, to more specialist investments such as 3D printers which bring a new perspective to design and manufacturing. Proponents of the technology envisage a 3D printer sitting in every primary classroom, allowing for the technology to be fully embedded across the curriculum and enabling students to develop 3D computer-aided design skills before entering secondary school³⁹.

Making up budget shortfalls: financing and leasing options for schools

What has become very clear to school budget-holders is that Government funding cannot be relied upon to deliver the investment needed to sustain teaching facilities and keep pace with the latest technology opportunities and skills, which in turn is hampering their ability to meet targets associated with preparing children for a digital workplace, with relevant experience and interest in subjects in which they need to be proficient.

Without an alternative source of funding, schools are stuck. They must deliver progress, and they must stay secure and compliant with the latest regulations designed to protect sensitive data, and they must do this now.

An increasingly attractive option is to use flexible financing and leasing from trusted and specialist financial providers to the education sector – affordable spread payment solutions that have been specifically designed to help UK schools bridge the funding gap and source the equipment, skills and resource institutions need today.

Up-front capital investments are not only difficult for schools to afford; they are no longer in keeping with ICT purchasing models. As so much technology functionality, Software-as-a-Service (SaaS) applications and services move online, provided remotely via the cloud, it no longer makes sense for schools to spend several hundred pounds on preselected hardware and software. The preferred way to source ICT now is to access facilities on demand, paid for monthly. As well as spreading the cost, it means schools no longer have to worry about investments quickly becoming obsolete, or the expense of maintenance. Updates and support become the responsibility of the application or service provider.

With flexible finance or leasing solutions, schools can blend hardware, software and services into a



combined, predictable monthly cost which gives them access to everything they need, when they need it. And if they want to switch to different systems half way through, they have the freedom to do this: they aren't locked into an earlier choice only to find that things have moved on and there are better options available. Finance can be extended to training too, to ensure that staff are equipped with the latest technology skills, whether that's to bring ICT use up to date in the classroom or to demonstrate that the school is up to speed with the latest cyber-security requirements and its responsibilities to keep data safe.

Paying for new IT equipment such as laptops, tablets, speakers, headsets, classroom screens, printers and networks over time (typically over one to five years), meanwhile, can help schools gain access to the latest technologies in a manageable and predictable way, accelerating the return on investment in technology and ensuring that increasingly digitised learning facilities do not become easy targets for opportunist cyber criminals.

Ongoing IT consultancy services are often overlooked in school budgets, and again this is something alternative funding providers can help with. Bespoke and unsecured

loans from specialist providers offer education institutions a means to invest in security awareness training and 'health check' audits from external IT consultants who can assess a school's network security processes and flag susceptibilities to minimise potential vulnerabilities. Additionally, It may be possible to access cyber insurance, covering loss in the event of a data breach. With Wesleyan's General Insurance, for instance, premiums can be paid over time using finance.

Although no school may ever be 100 per cent secure, by accessing the right funding and taking the right measures, at least they can demonstrate they are doing everything they can to protect and maintain the trust of pupils and parents, while remaining compliant with evolving data protection regulations.

About Wesleyan Bank

Wesleyan Bank, a member of the British Educational Suppliers Association (BESA), has a long track record of providing tailored finance solutions to schools to enable them to invest in the technologies and environments they need⁴⁰. We offer long-term flexible loans, and we provide asset finance for ICT equipment, over periods of 1-7 years typically. We can also fund cloud-based technology acquisition, catering for subscription-based purchasing, in addition to services such as training and consultancy. In addition, we have developed a one-to-one funding programme to help schools and parents finance students' personal learning devices that can be used outside of the classroom, as well as during school hours.

Benefits of spreading payments over time include:

- Fast, affordable access to the latest technology, without a large upfront payment
- Keep infrastructure secure and up to date, to prevent slipping behind other schools, or falling out of sync with the latest cyber-security
- The ability to source hardware, software, installation, training and support in a single flexible, predictable monthly finance package
- Supplier choice the ability to choose ICT solutions from any supplier
- Flexible access to upgrades and addition of users
- Elimination of cash flow spikes and troughs
- Competitive rates
- Keep finance separate from everyday banking

Conclusion

In the midst of all the changes facing education, technology is a critical enabler⁴¹. It offers a window on the world for pupils wherever they are, and a means of inclusion for those who find learning more challenging. For teachers, the latest ICT enables greater efficiency in re-using tried and tested content, and of sharing best practice on lesson planning; of understanding and meeting the needs of pupils as individuals; and of capturing and interpreting evidence about outcomes. It is also the key to turning out students who are equipped for a digital workforce, and who will benefit in their higher education choices and careers from being inspired more broadly in STEM subjects.

Quite simply, schools cannot afford to continue to fall behind with technology – in their use of it, or their understanding of and ability to promote it. Whatever the Government's funding strategy, and however limited education budgets remain for the next few years, schools' competitive differentiation, their results, and their compliance with new security requirements,

A case in point: London School of Marketing

When London School of Marketing (LSM) saw the opportunity to introduce the world's first MBA course that could be studied on smartphone devices, the only thing standing in its way was funding. It was something beyond the norm for the School's usual day-to-day high street bank, but offering the new virtual e-learning environment would add unprecedented value to wouldbe students, by giving them new flexibility in when and how they completed their studies.

So LSM applied for an unsecured loan from Wesleyan Bank. The flexible, phased-payment agreement allowed LSM to spread the cost of purchasing cutting-edge software, IT consultancy and associated people fees in one affordable package without the need to dip into vital cash reserves. The finance plan was tailored to LSM's requirements, giving the School the option to upgrade the technology halfway through its contract and take advantage of new technology developments if new and better options emerged.

LSM's initial borrowing experience, back in 2013, was such a positive one that LSM has subsequently returned to Wesleyan Bank to fund a second phase of development, to further enhance the e-Learning platform. Despite a tight deadline, Wesleyan Bank again provided the necessary six-figure funding to enable LSM to accelerate its ambitious IT project without delay. As a result, students can continue to study on their smart devices, both on and offline, wherever they want, irrespective of location. Ongoing plans include greater integration with popular social apps, such as Facebook and WhatsApp.

Thanks to its ability to progress its innovative e-Learning plans, LSE reports a higher take-up of its courses, as information is now much easier for students to follow and access on the move.

depend on the ability to maintain investment levels, stay current and keep pace with accelerating developments.

With more creative and flexible financing and leasing options, the good news is that schools do have another way to progress their plans.

For more information about Wesleyan Bank's range of flexible finance and leasing solutions please visit wesleyan.co.uk/educationcommercial. Alternatively, call us on 01606 338 001 or email bankcommercialsales@wesleyan.co.uk. 1 Extra cash in school budgets in funding shake-up, BBC News, July 2017: http://www.bbc.co.uk/news/education-40634472

² IFS: Greening's funding pledge amounts to 'real-terms cut over four years', TES, July 2017: https://www.tes.com/news/school-news/ breaking-news/ifs-greenings-funding-pledge-amounts-real-terms-cutover-four-years

³ Schools highlight urgent need for teacher CPD in EdTech in major BESA report, British Educational Suppliers Association, January 2017: https:// www.besa.org.uk/news/schools-highlight-urgent-need-teacher-cpd-ed-tech-major-besa-report

4 Gamification should be used in education, blog, The Educator, August 2017: https://www.theeducator.com/blog/gamification-education

s Is technology delivering in schools? Our panel debates – Guardian Teacher Network, July 2017: https://www.theguardian.com/teacher-network/2017/jul/04/is-technology-delivering-in-schools-our-panel-debates

6 Does technology in schools help teachers cater to different learning abilities?, ResourceEd, August 2017: https://resourced.prometheanworld. com/tech-teaching-different-abilities

7 Out with the old school? The rise of ed tech in the classroom, The Guardian, August 2017: https://www.theguardian.com/small-businessnetwork/2017/aug/01/schools-slowly-edtech-sector-cubetto-kahoot-firefly

⁸ The 82 Hottest EdTech Tools of 2017 According to Education Experts, Tutorful, April 2017: https://tutorful.co.uk/blog/the-82-hottest-edtechtools-of-2017-according-to-education-experts

 Mobile Devices in Early Learning, Stranmillis University College, Queen's University Belfast, commissioned by the Education Authority, May 2017: http://www.stran.ac.uk/media/media,756133,en.pdf

10 Welcome To The Future – Touchscreens In Classrooms, Education Technology Solutions, June 2015: https://www. educationtechnologysolutions.com.au/2015/06/welcome-to-the-futuretouchscreens-in-classrooms

UK Video Conference Awards 2017, Video Conferencing for Learning, February 2017: http://www.vcfl.net/2017/02/uk-video-conferenceawards-2017

How to use video conferencing in the classroom, ResourceEd, May 2017: https://resourced.prometheanworld.com/use-video-conferencingclassroom

Lessons from Africa: Send a Cow Education: Skype in the classroom: http://www.sendacow.org.uk/lessonsfromafrica/resources/skype-classroom

¹⁴ VR and robotics most popular choices in edtech for schools, Education Technology, July 2017: http://edtechnology.co.uk/Article/vr-and-roboticsmost-popular-choices-in-edtech-for-schools-1500473165

15 Virtual reality check, TES, January 2017: https://www.tes.com/news/ school-news/breaking-views/virtual-reality-check

¹⁶ Chinese School Opens Full-Function VR Classrooms, VR Focus, October 2017: https://www.vrfocus.com/2017/10/chinese-school-opens-fullfunction-vr-classrooms

77 Faces of tomorrow, JESS Dubai: https://www.jess.sch.ae/about-jess/ faces-of-tomorrow/mrs-coffey-teacher

¹⁸ Classroom artificial intelligence programme gains global recognition, Schools Week, March 2017: https://schoolsweek.co.uk/classroom-artificialintelligence-programme-gains-global-recognition

¹⁹ Deep dreaming of Al in education and using data to improve teaching, Jisc, February 2017: https://www.jisc.ac.uk/blog/deep-dreaming-of-ai-ineducation-and-using-data-to-improve-teaching-06-feb-2017

²⁰ Time Saving Tips For Lesson Planning, Classroom Monitor, December 2017: http://www.classroommonitor.co.uk/time-savingtips-for-lesson-planning

²¹ Use of data in the classroom, SISRA, March 2017: https://www.sisra. com/use-of-data-in-the-classroom

²² How data analytics can help schools and unis foster growth, Education Technology article: http://edtechnology.co.uk/Article/how-data-analyticscan-help-schools-and-unis-foster-growth

²³ Sheffield-born tech tycoon provides boost for computer science in schools, Yorkshire Post, December 2017: https://www.yorkshirepost. co.uk/business/sheffield-born-tech-tycoon-provides-boost-for-computerscience-in-schools-1-8896307 ²⁴ The 2017 Best Student Accommodation Winners, StudentCrowd: https://www.studentcrowd.com/article/student-accommodation-2017winners

²⁵ Durham University top for on-campus wifi, Jlsc, December 2017: https://www.jisc.ac.uk/news/durham-university-top-for-on-campus-wifi-18-dec-2017

Research commissioned by the Baker Dearing Educational Trust, a charity which promotes and supports University Technical Colleges. Schools are failing a generation of children by not teaching cutting-edge technology in the classroom, SGS Berkeley Green UTC, September 2017 : http://www.berkeleygreenutc.org.uk/blog/schools-failing-children-notteaching-cutting-edge-technology

²⁷ Industrial Strategy: science and STEM skills: Government Response to the Committee's Thirteenth Report of Session 2016–17 - Third Special Report, UK Parliament, September 2017: https://publications.parliament. uk/pa/cm201719/cmselect/cmsctech/335/33502.htm

²⁸ Microsoft and London Grid for Learning aim to transform education in London - Microsoft and London Grid for Learning (LGfL) are aiming to transform education in London after teaming up to boost the use of digital skills and tools in classrooms across the capital, Microsoft web site, October 2017: https://news.microsoft.com/en-gb/2017/10/13/microsoftand-london-grid-for-learning-aim-to-transform-education-in-london

²⁹ Security breach fears over 26 million NHS patients, The Telegraph, March 2017: http://www.telegraph.co.uk/news/2017/03/17/securitybreach-fears-26-million-nhs-patients

³⁰ NHS cyber attack: Everything you need to know about 'biggest ransomware' offensive in history, Telegraph, May 2017: http://www. telegraph.co.uk/news/2017/05/13/nhs-cyber-attack-everything-need-know-biggest-ransomware-offensive

³¹ NHS staff personal data leaked in latest data breach, Information Age, August 2017: http://www.information-age.com/nhs-staff-personal-dataleaked-latest-data-breach-123467676

³² The growing cyber security threat to the UK education sector, Information Age, September 2017: http://www.information-age.com/ growing-cyber-security-threat-uk-education-sector-123468504

³³ Hackers con parents with fake school bills, The Times, December 2017: https://www.thetimes.co.uk/article/hackers-con-parents-with-fakeschool-bills-nhzb6qf0k

³⁴ Schools face hefty fines for data breaches under new EU laws, Schools Week, January 2018: https://schoolsweek.co.uk/schools-face-hefty-fines-for-data-breaches-under-new-eu-laws

³⁵ British teenagers to be taught 'cyber curriculum' to defend UK against threat of hacking attacks, The Independent, February 2017: http://www.independent.co.uk/news/uk/home-news/cyber-attackssecurity-uk-russia-china-isis-terrorist-nhs-websites-curriculum-schoolteenagers-a7574611.html

³⁶ Training needs identified as key in UK education technology survey, Special World, January 2017: http://www.specialworld.net/2017/01/30/ training-needs-identified-as-key-in-uk-education-technology-survey

37 British Educational Suppliers Association (besa) Resource our Schools statement: https://www.besa.org.uk/resource-our-schools/statement/

³⁸ Edtech is an enabler of change, Education Technology article: http://edtechnology.co.uk/Article/edtech-is-an-enabler-of-change

³⁹ 3D printing: opinion article by Paul Croft of The CREATE Education Project, Education Technology: http://edtechnology.co.uk/Article/expertinsight-3d-printing-1507631209

⁴⁰ Wesleyan Bank offers top tips on how leasing can ease the school funding challenge, Wesleyan Bank, April 2017: http://www.wesleyan.co.uk/ news-and-insight/wesleyan-bank-offers-top-tips-on-how-leasing-canease-the-school-funding-challenge

⁴¹ Here's how technology is shaping the future of education, Business Inside UK, December 2017: http://uk.businessinsider.com/how-technologyis-shaping-the-future-of-education-2017-12/#technology-is-providing-away-for-learning-models-to-become-increasingly-personalized-1

WESLEYAN

we are all about you

Being a mutual is the bedrock of what Wesleyan does.

It is integral to how we think about our business and the way we look after our members, customers and our communities.

We believe mutuality has many advantages. It allows us to put our members and customers at the heart of all we do - rather than shareholders and the need to maximise short term profit - meaning we are able to focus on what's right for those who invest in our business. Not just for today, but for the long term.

For over 175 years our mutual status has served us well, and we have no doubt it will continue to do so for many years to come.

The Wesleyan Group of companies provides advice and solutions on a wide range of products and services to meet both the personal and business needs of our customers.



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