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Windows 10 Pro





Channel must demonstrate the value of ICT to prove its worth to schools



"I fundamentally reject the notion you need technology aids in school".

Those were the words of one Google executive quoted in a 2011 *Telegraph* article who had chosen to send his children to a low-tech Waldorf school.

The belief that technology is getting in the way of, rather than advancing, classroom learning appears to be a growing one, with a rising number of Silicon Valley "digerati" buying into the Waldorf philosophy.

That viewpoint is, of course, up for debate. But it does prove that technology must earn, rather than take for granted, its place in our country's classrooms, particularly as schools gain greater autonomy over their IT spending and demand more from suppliers. The survey of education IT purchasing decision makers (see p2) and Freedom of Information (FoI) research of 72 UK universities (see p14) featured in this report do, however, paint a relatively buoyant picture of IT spending in the UK education sector.

More school, college and university IT managers we questioned have seen their IT budgets rise for this academic year than fall. Meanwhile, FoI information we obtained from universities suggests higher-education IT spending hiked by more than a tenth in the academic year ending 31 July 2014, with the average spend per university jumping from £4.82m to £5.19m.

This only goes to show that the education market represents a fertile opportunity for IT suppliers who can demonstrate the value of technology in classrooms and campuses for the coming year.

Doug Woodburn is managing editor at CRN.

Westcoast and HP: Reinventing the way students learn



Technology is everywhere and affects nearly every part of education, from teaching to parenting, and, most importantly, learning. With an increasing presence in our children's lives, innovative IT solutions in the classroom are essential tools for students everywhere.

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Paul Hamilton is HP PPS client director at Westcoast Ltd.

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New school of thought

The ICT market moves swiftly and the education sector is no exception. **Doug Woodburn** reports on research into the shifting budgets and investment priorities of education CIOs

The Blair years saw an ICT arms race in our schools, with British classrooms accumulating a collective 2.5 million computers by 2010, according the British Educational Suppliers Association (BESA). Money made available through the Building Schools for the Future (BSF) programme gifted IT suppliers with a seemingly endless stream of bumper capex projects.

But ICT resellers who grew fat off this education spending boom will be painfully aware that the spending environment has shifted dramatically over the past five years.

The BSF tap has been turned off, budgets have been squeezed, purchasing decisions have been decentralised and a debate is even raging about the extent to which technology is desirable in the classroom.

According to reports, more and more of Silicon Valley's "digerati" are opting to send their children to Waldorf schools,

where ICT is shunned in favour of more traditional learning methods. This is stark proof that the link between technology and education should never be taken for granted.

At the same time, public sector spending cuts have seen school and university tech budgets come under greater scrutiny. The amount of cash schools have per pupil will fall by seven per cent in real terms during this parliament, David Cameron announced in February, and technology may not be immune from the crunch.

Meanwhile, since the concept was introduced in 2000, more than half of UK secondary schools have converted to academy status, handing them responsibility over their IT purchasing decisions. By June, there were 4,676 academies open in England, up from 203 in May 2010. The Conservative government has pledged to open 500

The amount of cash schools have per pupil will fall by 7% in real terms during this parliament

free schools and convert up to a further 1,000 schools to academy status during this parliament, meaning suppliers are faced with a rapidly shifting purchasing environment.

> The role of IT in the curriculum is also undergoing a metamorphosis as more emphasis is placed on programming skills. The number of students who sat a computing GCSE more than doubled this year to 35,000.

> > Arguably, not since the first PCs were installed in school computer labs in the 1990s has the role



Has your budget for ICT and related services for the current year:

of IT in both the classroom and curriculum - and the way it is procured - been in a greater state of flux.

Against this backdrop, we surveyed 46 ICT decision makers at UK schools, colleges and universities to gain an insight into their purchasing decisions, as well as their attitude to cloud computing and government procurement frameworks.

The good news is that, although budgets are undoubtedly stretched, more respondents have seen their ICT spending pot grow for this academic year than shrink.

Of the 34.8 per cent who enjoyed an ICT budget hike, 8.7 per cent saw the figure swell by more than 20 per cent, with 15.2 per cent experiencing a five to 20 per cent jump and 10.9 per cent receiving a rise in the low single digits. But some 26.1 per cent endured a budget shrinkage. Of that, 2.2 per cent suffered a rise of less than five per cent,

The number of students who sat a computing GCSE more than doubled this year to 35,000

13 per cent saw their war chest decrease by between five and 20 per cent and 10.9 per cent endured a fall of greater than 20 per cent. Meanwhile, 30.4 per cent reported an ICT budget that was broadly flat.

Interest in infrastructure

The outlook for investment in core hardware technologies is mixed, with nearly a quarter (23.9 per cent) of respondents not planning

to spend any money on server and storage technology over the coming 12 months, a higher percentage than any other technology segment we asked about barring cloud. Among those who will splash their cash, rack servers were the most in-demand infrastructure

34.8% of ICT decision makers surveyed said they have seen a budget increase for this academic year

technology (34.8 per cent), followed closely by blade servers and HDD storage (32.6 per cent each).

Perhaps surprisingly, given all the hype, only 15.2 per cent are planning to invest in flash storage, a smaller percentage than the last time we conducted this survey (when the figure was 22.2 per cent).

Even further down the pecking order were tape storage, tower servers and hybrid storage (all on 8.7 per cent), while just 2.2 per cent are planning to open the purse strings to buy deduplication technology.

Taking the tablets

A far greater outpouring of spending will be witnessed in the client space, with 93.5 per cent of respondents

67.4% of respondents intend to use some of their budget for tablet purchases

planning to spend money on PCs, tablets, mobile phones or printers. Despite fears that it is a form factor in decline, the tablet remains top dog in the education sector, with 67.4 per cent of respondents intending to splash the cash on the touchy-feely devices this academic year, compared with 63 per cent for laptops and 60.9 per cent for desktops.

Just less than half (47.8 per cent) of respondents plan to bolster their estate of printers or MFDs in the year to come, while just 19.6 per cent are budgeting for mobile phone purchases.

Software selection

Software is another area promising mixed rewards for education suppliers, with a fifth (19.6 per cent) of respondents indicating they will not spend anything in this area this coming year. But a relatively high percentage (45.7 per cent) plan to shell out on bespoke or industry-specific software packages. That's significantly more than the proportion poised to invest in database software (34.8 per cent), operating systems (30.4 per cent) and service management/ helpdesk software (28.3 per cent). Just 21.7 per cent have set aside budget for CRM software and just 6.5 per cent for ERP software. Perhaps surprisingly, given all the hype, only 15.2 per cent are planning to invest in flash storage, a smaller percentage than last time we conducted this survey, when it was 22.2 per cent

Stampede for security

This summer's Ashley Madison breach has ensured IT security remains top of the boardroom agenda. But not every school or university IT director is planning to fortify their IT security defences this year. According to the survey data, IT security is on the shopping list of 87 per cent of respondents, with firewalls (45.7 per cent) and anti-virus (41.3 per cent) the most in-demand technologies. Email security (30.4 per cent), web filtering (28.3 per cent) VPN (26.1 per cent) authentication (23.9 per cent) and penetration testing (21.7 per cent) are also all earmarked for spending by more than a fifth of respondents, signalling a bumper year for education-focused IT security suppliers.

Switched on

The research also provided a crumb of comfort for networking and comms providers. A whopping 60.9 per cent of respondents said they will shell out on switches this year, a higher percentage than any other technology we asked about barring PCs and



tablets. Some 45.7 per cent are in the market for LAN gear, while a respective 32.4, 30.4 and 10.9 per cent are planning to spend on routers, WAN and PBX technology. However, more than a fifth (21.7 per cent) will keep their wallets firmly shut when it comes to networking/comms in this academic year.

Clamour for cloud

This survey was last conducted in January 2014, and the biggest change in the intervening 18 months seems to be respondents' attitude to cloud computing, particularly software-as-a-service.

In last year's survey, just 21.43 per cent said they were planning to invest in software-as-a-service in that academic year. In an indication of the growing acceptance of the fluffy form of IT, that figure has more than doubled to 50 per cent this time around. The proportion planning to buy platform-as-a-service technology has, similarly, nearly doubled from 14.29 to 26.1 per cent between the two surveys. And just 34.8 per cent said they had no plans to invest in as-aservice technologies this year, compared with 57.14



It appears from the comments they supplied that education purchasing decision makers are adopting a mixture of public and private cloud technology. "We

security is on the shopping list of 87 per cent of respondents, with firewalls (45.7%) and anti-virus (41.3%) the most in-demand technologies

moving many of our applications and most of our large volume data storage to private cloud at the moment," one respondent confided. Several others revealed they had migrated their email to Microsoft Office 365, while another said they are conducting "lightweight investigation of AWS".

are

"The bulk of funds are spent on shared facilities and buying services on national academic facilities," this respondent added. Meanwhile, another IT manager



revealed where they were in their college's cloud journey. "We are currently organising the college website to be migrated into the cloud. This will be our first platform thus migrated (other than Office 365)," they explained.

Framework fancy

The survey also uncovered an ambivalent attitude to government purchasing frameworks among the respondents. In theory, the volumes achieved through these purchasing vehicles will drive down prices, at least on the set SKUs they offer. Suppliers on them have also been vetted. But not everyone is convinced they're the way forward, with just 23.9 per cent of respondents saying they purchase all or most of their ICT products through frameworks given the choice. Some 30.4 per cent said they purchase some



companies may be precluded from bidding and cast things accordingly."

Still, purchasing frameworks appear to be marginally more popular than the last time this survey was conducted, when 10 per cent professed to never using them and only 17.5 per cent said it was their primary or sole vehicle for buying ICT goods. At least one respondent was a fan: "Frameworks give us a simple means to circulate pricing requests, meeting the college's financial instruction and OIEU requirements (when applicable)," they said. Another described them as a "good idea" but said they "rarely work out

goods in this fashion, 8.7 per cent said they rarely use this method and 13 per cent said they would never use frameworks if given the choice. A further 23.9 per cent believed there are "no or very few applicable frameworks through which we can buy ICT products".

Lack of choice/flexibility and poor value for money were two common gripes when

respondents were pressed to give a more detailed account of their stance on frameworks.

"We prefer to research and source the products we need, given the prevailing position of our school," said one respondent, while another criticised frameworks for being "not very appropriate" and "restrictive". Another said: "Why use a framework and pay more if you do not have to?"

Another respondent picked out the National Server and Storage Agreement (NSSA) as an example of a framework that does not offer education customers best value. "Some purchasing frameworks (eg NSSA) are convenient but offer poor server prices because Intel feel they are guaranteed the win regardless of who is chosen," they said. "Frameworks do ensure consistent and competitive prices for large-scale and multi-year contracts, but you must be aware of which

h There S has been a rise of 6.4 percentage points in the number of respondents who use frameworks as their primary or sole vehicle for buying ICT goods

for the small volumes we buy".

Microsoft monopoly

For the big IT brands, the education sector is more than just a sales opportunity: it represents the battleground for control of the technology today's children use as they enter the workforce.

Microsoft's global hegemony in the education sector is under threat from both Apple and Google. According to Gartner, nearly two thirds of the 5.7 million Chromebooks shipped in 2014 went into the education sector, where the device's simple functionality and remote administration capabilities have resonated. However, the market remains skewed towards the US. EMEA will account for just 866,000 of the 7.3 million Google Chromebooks set to ship this year, according to Gartner, with North

America set to generate six million of the total.

Perhaps in response to this competitive threat, Microsoft in 2011 launched its Shape the Future programme (which was rebranded in 2014 as the Technology Access Programme), a scheme that has seen it effectively give away its operating system to OEMs and PC builders in a bid to win the battle for the hearts and minds of schoolchildren.

But how much success have Apple and Google

Why use a framework and pay more if you do not have to?

actually had in dislodging Windows as the principal operating system in the education UK space? Not much, according to our survey. Some 93.5 per cent of respondents said they predominantly Windows-based 1150 devices in the classroom environment. Iust 4.4 per cent said Apple was their principal platform. with just 2.2 per cent nominating Chrome.



According to StatCounter, Windows 10 grabbed 5.56 per cent share of the global operating systems market

But

in its first four weeks on the market. Available as a free download, the OS was downloaded 14 million times in the 24 hours following launch, according to Microsoft.

Windows 10 grabbed 5.56 per cent share of the global operating systems market in its first four weeks on

education purchasing decision makers do not appear to be rushing to upgrade. Only 4.4 per cent of respondents said they have already upgraded to Windows 10 or will do so in 2015. Some 50 per cent said they intend to next year, while 34.8 per cent said they had no plans upgrade to Microsoft's to new operating system. А further 8.7 per cent and 2.2 per

cent, respectively, said they weren't planning to upgrade because they had only recently rolled out Windows 7 or Windows 8.

Cause for optimism

Recent changes in the education spending environment mean suppliers may have to work harder for their money than ever before. But our survey results suggest there is clear reason for cheer among resellers serving this arena.

Education budgets will come under increasing pressure, but it appears ICT has generally been spared this year. After all, nearly two thirds of respondents indicated their ICT war chest for this academic year has either increased or was flat on last year, while only just under a third suffered a decrease. Our respondents' ambivalence towards education purchasing frameworks will also provide comfort to smaller suppliers without the critical mass to be selected for them. Less than a quarter of those questioned said they used frameworks for all or most of their IT purchases, suggesting the vast majority of potential business remains open to all suppliers.

Many of the results of our survey echo the findings of the British Educational Suppliers Association (BESA), and you can read an exclusive interview with BESA's director general further on in this report.

By and large, there was a remarkable consistency between this year's survey data and that of its predecessor. Just like 18 months ago, tablets topped education purchasing decision makers' collective shopping list, with 67.2 per cent of respondents preparing to shell out on the form factor this year, compared with 70 per cent last time around. Security emerged as another priority area in both surveys, while server and storage technologies were well down the pecking order each time.

If there was one stark difference, it was in respondents' attitude to cloud computing, with the proportion who indicated they plan to splash the cash on SaaS more than doubling comparatively.

Despite the education spending freeze, it appears that schools, colleges and universities are set to invest heavily in a wide array of technology this academic year. Any supplier who can successfully negotiate the forces of change at play in the sector is set to enjoy a fruitful year.





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No free ride

CAE managing director **Justin Harling** discusses the new opportunities opening up to the channel from IT provision for free schools

Thanks to their surprise Commons majority, the Conservatives have carte blanche to press on with their election pledge to open a further 500 free schools during this parliament. Unshackled from local-authority control and flush with cash, these autonomous schools will be seeking more from their suppliers as they look to use technology as a differentiator, as CRN found out during our discussion with Justin Harling, managing director of CAE.

CAE was one of 21 suppliers to make the cut for the new ICT Services for Education Framework, which is geared towards free schools and academies. What is the size of the opportunity these 500 new schools represent to ICT suppliers?

The government has talked about the framework having a £300m budget over a three-year term. Although that takes into account all schools that use it, we estimate that at least two thirds of spending will be directly related to that free schools programme. The fact we have a Conservative majority government that is absolutely clear in terms of its free schools policy means that, if anything, we feel that £300m number will rise.

How will the ICT needs of free schools and UTCs [university technical colleges] differ from traditional state schools?

No doubt some free schools will be going into areas where there is a distinct lack of school provision. But the [free schools] programme is not just about addressing population growth and some will be in direct competition with existing establishments. On that basis, if they do not attract students, they won't open successfully. Those schools need to show they are using the latest teaching methods, most of which will have a technology element. IT provision and the facilities they have is the type of thing we know is going to attract students as well as parents. Just having a computer room with a load of PCs in it won't be good enough anymore; they want to know how that technology is being used. Also, some of the free schools and UTCs have stated specialisms around technology. If you say you are a tech-specialist school, you had better make sure the technology provision you are giving is significantly ahead of the existing provision.

Will the new ICT Services for Education framework be the main purchasing vehicle for new-build free schools?

In short, yes. And one of the main reasons for that is because the Education Funding Agency (EFA) is promoting the framework as the best route for schools to use. That is relevant on two points. Firstly, every school gets a digital adviser from the EFA and they are the liaison with the school in terms of what IT they are going to have. The EFA ultimately decides how much money they get. Secondly, the other reason for this framework is because people who are setting up schools have an enormous to-do list. Technology is a significant part of that, but not the only part. Having a framework that makes it more straightforward can only help.



Which technologies will be most in demand among free schools and in the wider schools market?

Anything that aids collaboration, such as video and BYOD. Raspberry Pis and BBC micro:bits will also be in demand, and that highlights the increasing importance of programming in the curriculum. But they have to get the basics right. It's all very well giving out tablets and having Raspberry Pis, whiteboards and BYOD, but if you can't connect them up and have infrastructure that allows them to be used, the rest of the technology is pointless.

What trends have you observed in the buying patterns of free schools and in the wider education sector?

Previously, there was a lot of focus on big capital projects. But we are now finding that schools are actually interested in what help and support they will get when the technology has been put in place. When the local authorities were in charge, they were a bit faceless and they could be buying for a number of schools. What you are now getting, particularly with the free schools programme, is schools engaging directly with technology providers. That means what they are asking for is more precise and specialist. They want a relationship that helps them remain competitive. They want help to make sure the technology side of things such as Ofsted inspections is being delivered and that someone is willing to commit to that type of relationship with them. and that is a big shift from just a big purchasing agreement concentrating on capital from an LEA.

Does this mean price will be a less an important factor when schools come to make purchasing decisions?

Being able to deliver to budget is still important. But is it the main differentiator? Absolutely not. We have a more direct relationship with these schools now, so instead of it just coming down to a document with a price, it's about offering good value rather than being the cheapest. Price is no longer worth any more than 20 per cent of the buying decision, which leaves 80 per cent around the technology being put in and, more importantly, how that technology is going to be used and how the school is going to be supported going forwards. These schools could be set up by people who have no or very little digital literacy. Unless you are explaining the technology to teachers and extending that to the governors, it becomes ineffective. If you cannot do that, you won't win business.

Is 3D printing set for mainstream adoption?

3D printing is a good example of a technology where

people like to have it, but it's about making sure it will be used properly. Schools do not have the budget to put in place industrial-strength 3D printers that can be used constantly. You have to think very carefully about it. If you just throw in a 3D printer that's cheap and doesn't deliver good results, and not all the students have access to it when they want and the school realises it's burning through its opex budget — they will regret having it. We are starting to look at how we might introduce shared models around that so that individual schools can pool resources.

Is there an emerging technology that will take the education sector by storm, in the same way IWBs did a decade ago?

I think some of the stuff that came out of the FELTAG [Further Education Learning Technology Action Group] report, which looked at how technology could be used in the further education space, will start to come across all schools. One of the key things it highlighted was the amount of course content that is being delivered online. Again, that is about sharing resources, so any technology like that is going to become very interesting. The scope for how technology is used across these environments is limitless; looking at how robotics and AI can be used across schools in terms of teaching and marking, for instance. There is a vast amount that can be done, as long as it isn't technology for technology's sake.

A lot has been written about how some leading execs at tech firms such as Google. HP and Apple are choosing to send their children to Waldorf/Steiner schools, which deliberately spurn technology. What does that say about the long-term relationship between the education sector and IT? You've got this argument that says children could be taught without technology, and actually they will use technology in the home. There is certainly no way as an industry we should just assume technology is great for education and will have a positive impact on learning. That's a very dangerous assumption to make and something that is being increasingly challenged. Unless we are doing the right things, people's view of technology in education could become quite dim. If we roll out tablets without considering how they are going to be used, there will be an increased focus on the investment that's being put into that type of technology. As an industry, we have a responsibility to make sure the technology is being used properly and does actually help learning, otherwise we will damage ourselves as an industry in the long term.

The rise in learning-as-a-service

The convergence of myriad trends is fuelling a new phenomenon in the education sector, says **James Penny**, solutions director of European Electronique



Whether in a start-up free school, UTC [university technical college] or part of a complex university setting, technology plays a significant role. The focus on controlling budgets remains while users and procurement teams demand ever more value.

It's worth considering how until-now parallel trends are converging. It is at the point of convergence that new opportunities present themselves.

Public and hybrid cloud: The pressure on budgets places the use of cloud offerings at the forefront of everyone's mind. Using cloud can allow organisations to deliver more services for the same budget. Leading-edge organisations are already looking at the way public cloud offerings can be integrated into existing onsite systems. The aim is to build flexible, scalable and cost-efficient hybrid models. Where these strategies are being played out, not only does infrastructure move to a platform that is constantly refreshed, but the ability to manage mobile devices both on and off premise becomes much easier.

Using my own device: Demand for bring-yourown (BYO) strategies remains strong. While these schemes drive the sales of devices, they also place a focus on infrastructure. Wireless, networking and associated mobile device management (MDM) strategies come under ever-closer scrutiny and help is needed to support and develop infrastructure. The long-term aim is to support multiple devices, including those owned by students and staff. Largescale BYO deployments implemented correctly can reap extraordinary returns, as the Isle of Portland Aldridge Academy demonstrates. It delivered a BYOD strategy and has now moved on to a UMOD (use my own device) approach. It is revolutionising learning and results are on the rise.

Infrastructure is important: Many organisations are still updating and upgrading their basic infrastructure. Active networks and wireless remains critical for the modern organisation and keeping it up to date and future-proof is essential. This is made even more important by the move to mobility and 1:1 schemes. Networks are having to deal with multiple devices including personal devices. MDM becomes a critical

element of ensuring that a network runs effectively, delivering the right experience to the end user.

The OS: Windows 10 will have a significant impact. It introduces a 'one OS' strategy across all platforms from mobile to traditional. This greatly simplifies the deployment and management of devices and allows apps to be used on any device, breaking the desktop/ mobile app delineation we currently see. This makes the life cycle of solution design, purchase, deployment and management of technology significantly easier, not to mention the training of end users who will have just a single platform to master. The Android and Apple OS platforms also have much to offer and both are developing rapidly. Expect a lot of disruption in this space in the next 12 months.

Digital content: This area continues to develop and offer an ever more sophisticated and comprehensive portfolio that can be accessed from anywhere for little or no cost. The quality is better than ever and educators from across the spectrum are sharing increasingly more content through digital mediums, be that in the MOOC [massive open online course] environment, on dedicated web-based content sites or via the viral world of Twitter.

Where the trends converge: With the growth of hybrid cloud environments, the maturity of BYOD into UMOD and the development of digital content, the idea of "learning-as-a-service" (LaaS) is rapidly becoming possible. For the procurement community the opportunity is to only pay for what you use, make the most of public cloud offerings and realise as much value as possible for the minimum investment. For the IT industry relationships develop with customers where new service models create a long-term partnership.

In the next 12 months we will see the rise of hybrid environments and LaaS. Look at what Estonia has done with its approach to digital government: it moves the emphasis away from the physical to the virtual, strengthening the capacity to offer access to more services to a broader range of citizens. This has to be the way forward as we develop a more sophisticated portfolio of public services to a growing population. Education is a good place to start.

Learning about budgets

Caroline Wright, director of the British Educational Suppliers Association (BESA), outlines the changing needs of schools ICT budgets



What is the outlook for ICT spending in the UK education sector for this academic year?

To encourage ICT adoption in schools, previous governments ring-fenced funding. The arrival of the coalition government in

2010 saw the removal of a separate budget for ICT in schools, which at the time worried suppliers that ICT spending would decrease. However, our research of 900 schools (597 primary and 303 secondary) shows that investment in ICT hardware and system software has continued to grow over the past decade. Items included in these figures are wireless networking, all types of PCs and tablets, peripherals, ISP charges, curriculum software and digital content.

And this growth in investment appears to be continuing. ICT spending for this coming academic year (September 2015 to July 2016) is forecast to reach a total of £560m across all maintained schools. We can estimate that a typical primary school will increase its ICT expenditure by £810, while a typical secondary school projects a rise of £3,820. This will bring primary schools up to an annual ICT investment of £17,770 while the research predicts that secondary schools will be looking to spend £78,730.

These figures are an average, and the increase in investment is not being seen in all schools, but those that are expanding their expenditure are likely to spend significantly more than in the recent past.

What do you see as the main growth hotspots for the year ahead?

The impact of improvements in ICT investment is most likely to be directed towards computers for pupils (most likely tablets). Some 73 per cent of ICT leaders in our research last year recorded being under-resourced in tablets. In fact, only 13 per cent of schools indicated no requirements for tablets during 2015. This is backed by research we conducted in June, which suggested 71 per cent of primary and 76 per cent of secondary schools (an increase from 56 per cent in 2014 in both school types) are using tablets in the classroom. Currently, there are estimated to be 721,000 tablets for use by pupils in classrooms across UK maintained schools and academies, and it is forecast that by the end of 2016 this number will have increased to over 946,000. This upward trend appears to be continuing, with 15 per cent of schools suggesting that they will have 1:1 access to tablet technology by 2016 and 44 per cent of schools having one tablet per child by 2020.

However, a worrying issue that we raised last year is that nearly half of schools continue to report that poor broadband connectivity is a barrier to adoption.

There is an opportunity here for school leadership organisations and industry to work with schools to improve this issue; in not doing so we are failing to equip our young people with the essential digital skills that they need for their future careers.

Since the government's removal of assessment levels, there also appears to be an increased investment in assessment systems.

What are schools, colleges and universities looking for from their ICT suppliers, and is this changing?

Schools are collaborating to buy ICT to enable them to achieve economies of scale. Our research suggested 41 per cent of schools sometimes collaborate in classroom ICT procurement, an increase from 36 per cent in 2013 and 32 per cent in 2012. Overall, more efforts are being made than in the recent past to secure value for money. It is increasingly important for authority schools to choose their own brand of resources, while for academies there is now less emphasis on this requirement. Rapid and easy ordering and delivery has been important in the past; however, more recently schools are shifting towards the need for suppliers to be a trusted source.

What implications does the government's academy/free schools push have for ICT suppliers?

While academies and free schools have more autonomy over their expenditure, these freedoms are, to an extent, given to all schools. Historically the government passed schools' budgets to their local authority which would disseminate some funding to schools, keeping some for major investments for all schools in the authority, and retaining the remainder for services such as school dinners. All the funding now goes directly to schools, for them to decide how it is best spent. So while we do see small differences in spending patterns between academies and maintained schools, the findings are not significant.

Higher ground

The UK's top universities lavish tens of millions of pounds on IT every year, and their war chests are expanding, our FoI research into the higher-education sector finds

With their machines a common sight in university computer labs across the country, it will surprise few that Dell, Viglen and Apple finished first, second and third in our research into the biggest highereducation IT suppliers.

At the end of July, *CRN* sent Freedom of Information requests to nearly 100 universities asking how much money they spent on IT hardware, software and related services in their academic years ending 31 July 2014 and 2013. We also requested information on their top five suppliers by expenditure in both years, and how much they spent with each.

Although Dell expectedly topped the rankings by a country mile, the research produced some intriguing and unexpected findings.

Perhaps most surprisingly, aggregated IT spending among the 61 universities that gave us a total IT spending figure for both years hiked sharply between 2012/13 and 2013/14. The figure rose by an impressive 11.55 per cent year on year, from £295.35m to £329.48m. The total for the 68 universities that gave us data for 2013/14 stood at £352.83m.

But just as beguiling is the appearance of some perhaps unexpected names in the upper echelons of our supplier rankings. Logicalis emerged as the largest VAR/SI behind only BT, while HP partners DTP and Q Associates confounded our expectations by making the top 10. Conversely, VAR giants Computacenter, Kelway, XMA and Softcat failed to trouble the top 30.

Of course, this research should be taken only as a snapshot of how much universities are spending on IT, and with whom they are spending their budgets. We did not request data from every university and not every university we asked responded, with some of those that did giving us incomplete data. Moreover, those who responded in full interpreted our request in a number of ways, sometimes divulging data for their central IT services department or operating spend only and variously excluding or including VAT.

The supplier rankings were compiled by totting up spending data from each university's top five suppliers. Most universities gave us a full breakdown for both years, but some divulged no or only partial information, citing commercial sensitivity.

After the research was compiled, we received FoI responses from two further universities. Kingston said it spent £21.8m on IT in 2013/14, with its top supplier, Tectrade, accounting for £4.93m of that total. This would have thrust Tectrade into the top five suppliers had we received the data earlier. Meanwhile, The Robert Gordon University's top supplier last year was Workspace Technology, accounting for £445,000 of its £2.98m spend.

That said, the data we obtained should provide at least a guide of which suppliers are claiming the greatest share of university IT spending. You can read an overview of the top 10 suppliers below and a summary of the top 100 on p16. Then on p22 we have also summarised the spending data of the 71 universities that responded. With the government recently axing the cap on undergraduate student numbers, it's clear the higher-education sector will continue to offer a lucrative niche for IT suppliers with the right proposition.

1) Dell – £21.19m

Dell stands head and shoulders above the competition in the UK universities market, accounting for almost as much spend among our respondents as its three closest rivals combined.

Some 30 universities that broke down supplier data cited Dell as being one of their top five suppliers of IT hardware, software and services in 2013/14, more than any other supplier. In 10 cases, Dell was their top supplier and crucially, Dell was top dog in the two largest respondents by IT spend last year: UCL and Cambridge. UCL spent £5.03m with Dell in 2013/14, up from £4.27m the previous year, with Cambridge's outlay with the vendor also rising from £2.55m to £4.89m year on year. Middlesex, Queen's University Belfast and Glasgow University also all lavished more than £1m on Dell kit and services in their academic year ending 31 July 2014.

2013/14 spend: £21.19m **Times cited as top-five supplier:** 30

2012/13 ranking: 1 **2012/13 spend:** £16.38m



2) Viglen – £8.79m

Viglen machines are popular in university labs, so it's no shock the UK PC builder finished second in our rankings, having been cited as a topfive supplier 19 times. The University of Bristol accounted for more than a quarter of Viglen's 2013/14 total after laying down £2.27m with the firm. Brunel University was its second-biggest client, with an outlay of £939,000, with London Metropolitan and Durham also both racking up bills over £500,000.

2013/14 spend: £8.79m Times cited as top-five supplier: 19 2012/13 ranking: 2 2012/13 spend: £7.39m

3) Apple – £7.47m Apple was this research's most consistent

performer bar Dell, having been cited by 26 universities as a top-five supplier in 2013/14. That said, it was top dog with just one respondent – the tiny Royal College of Art, which spent £39,000 with the fruity vendor. The University of Dundee was Apple's biggest university client among those who divulged figures, spending £385,000 with it.



2013/14 spend: £7.47m Times cited as top-five supplier: 26 2012/13 ranking: 3 2012/13 spend: £7.08m

4) BT – £5.97m

Totting up the contributions of its assorted arms – BT Business Direct, BT IT Services, and BT iNet, (now merged into BT IT Services) – many-headed hydra BT finished fourth in our rankings, with total spend of £5.97m. It was cited as top supplier by two universities, including the University of Bath, which spent £775,000 with BT IT Services. The biggest total, however, came courtesy of the £1.59m in business BT iNET rang up with UCL. **2013/14 spend:** £5.97m **Times cited as top-five supplier:** 14 **2012/13 ranking:** 8

5) Harvey Nash - £5.54m

IT outsourcing and recruitment consultancy Harvey Nash makes the top 10 due almost entirely to its lucrative relationship with the Open University. The remote-learning establishment lavished £5.29m of its total 2013/14 £13.42m IT outlay on Harvey Nash. It was also the second-largest supplier of King's College, London.

Spend 2013/14: £5.54m Times cited as top-five supplier: 2 2012/13 ranking: 64 2012/13 spend: £242,000

6) Logicalis - £5.05m

2012/13 spend: £2.95m

Logicalis was cited as a top-five supplier only nine times, but when it did feature, sales tended to flow in high volumes. The Cisco Gold partner was cited as top supplier by two universities, including the University of Bedfordshire, which spent £1.70m with it. Manchester Metropolitan (£818,000), Loughborough (£691,000) and Bournemouth (£494,000) were among its other major university clients.

Spend 2013/14: £5.05m **Times cited as top-five supplier:** 9 **2012/13 ranking 4: 2012/13 spend:** £6.32m

7) HP – £4.93m

HP may have indirect representation in this research through several reseller partners, but it is also a substantial supplier of universities in its own right. Some 11 universities cited it as a topfive supplier in 2013/14, with one – Loughborough - counting the US giant as its largest one of all. Exeter and the the Open University were HP's two largest spenders in 2013/14, ponying up £900,000 and £804,000 for its goods and services, respectively.

 Spend 2013/14: £4.93m

 Times cited as top-five supplier: 11

 2012/13 ranking: 7
 2012/13 spend: £3.15m

8) DTP - £4.69m

HP Platinum partner DTP was a surprise entrant in our top 10, having been cited as a top-five supplier by 10 universities. Six of those – Bradford, Northumbria, Brighton, Teeside, the University of Central Lancashire and Manchester Metropolitan – counted the public sector specialist as their single biggest source of IT goods and services.

Spend 2013/14: £4.69m

Times cited as top-five supplier:102012/13 ranking 52012/13 spend:£3.61m

9) Capita - £3.18m

When totted up, the contribution of its various arms – namely Capita IT Services, Business Services and Education Services – thrust Capita to ninth in the rankings.

Its biggest client was the University of Glasgow, which spent £1.05m with Capita IT Services in 2013/14. Continuing the Scottish theme, Capita was the largest supplier of only one university which responded – Edinburgh Napier. **Spend 2013/14:** £3.18m **Times cited as top-five supplier:** 9 2012/13 ranking: 12 2012/13 spend: £2.44m

10) Q Associates – £3.10m

Q Associates scrapes into the top 10 on the back of UCL spending £1.73m with the storage VAR in 2013/14. Abertay and Greenwich also both laid out more than £500,000 with it and it was a top-five supplier for five universities in total. Spend 2013/14: £3.10m

Times cited as top-five supplier: 5 2012/13 ranking: 18 2012/13 spend: f1 43m



Position	Company	Spend	Cited as top supplier	2012/13 ranking
48	Macquarie Equipment Finance	£489,000	1	-
49	Academia	£469,000	3	44
50	Proact	£459,000	1	36
51	Spectrum Computer Supplies	£447,000	1	34
52	Learning Science	£445,000	1	-
53	Eurobase Systems	£402,000	1	80
54	Real Staffing	£400,000	1	74
55	Hays Specialist Recruitment	£388,000	1	-
56	C>ways	£370,000	1	-
57	Reflex Limited	£345,000	1	-
58	Novosco	£322,000	1	-
59	Jigsaw	£318,000	2	28
60	Workspace Technology	£304,000	1	-
61	Sumtotal Systems	£299,000	1	-
62	European Electronique	£294,000	3	-
63	Huawei	£289,000	1	-
64	Maindec	£283,000	1	-
65	Streamtec Ltd	£267,000	1	-
66	Ellucian Global Limited	£255,000	1	61
67	RM	£240,000	1	15
68	Eduserv	£230,000	3	71
69	AIT Partnership Group	£222,000	1	-
70	Spring Personnel	£222,000	1	-
71	CACI Limited	£217,000	1	-
72	Cloud Business Limited	£212,000	1	-
73	Sharp Electronics	£208,000	1	69
74	NorthgateArinso	£205,000	1	60
75	Vodafone	£200,000	1	-
76	Thomson Financial Services	£193,000	1	79
77	CampusIT Limited	£185,000	1	47
78	Redcentric	£179,000	1	66
79	Sitecore UK	£178,000	1	-
80	LM Information Delivery UK	£174,000	1	82
81	OLC	£126,000	1	-
82	Copyright Licensing Agency Ltd	£106,000	1	92
83	iParadigms Europe	£93,000	1	-
84	Pebble Learning Itd	£83,000	1	-
85	Fortuna Power Systems	£83,000	1	-
86	Aegis IT	£81,000	1	-
87	Scientia Ltd	£79,000	1	45
88	BNR	£77,000	1	-
89	Ricoh UK	£76,000	1	97
90	CIT Group (UK) ltd	£74,000	1	77
91	Solutions Developed	£74,000	1	-
92	Midland HR	£71,000	1	-
93	Daisy Corporate Services	£68,000	1	110
94	Danwood	£64,000	1	-
95	MTI	£60,000	1	58
96	ХМА	£56,000	2	83
97	NetIQ	£52,000	1	101
98	ULCC	£43,000	1	-
99	SEC-1	£41,000	1	-
100	SirsiDynix	£39,000	2	-



£39,000

Amount the Royal College of Art spent with its largest IT supplier, Apple, in 2013/14 ...also the price per night to rent Richard Branson's Necker Island

£5.29m

The Open University's spending with IT outsourcing firm Harvey Nash in 2013/14, roughly equivalent to the £5.25m summer transfer fee of former Manchester United winger Nani



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WESTCOAST

Hey big spender

A rundown of the top universities by IT spend, and which suppliers they are favouring

1) UCL £28.69m

With 35,000 students, 11,000 staff and an annual income of £1bn, University College London is one of the UK's largest universities and also one of the more prestigious, ranking 13th in *The Complete University Guide's* latest league table.

Founded in 1826, in 1878 the Gower Streetbased institution became the first university in England to admit women students on equal terms with men, according to its website. Citing figures from the Higher Education Statistics Agency, it also claims to be one of the top two universities in the UK by number of professors.

All told UCL spent almost £8m more on IT products, software and services in 2013/14 than the previous year, with Dell being its main supplier both years.

Total IT spend: 2013/14: £28.69m 2012/13: £20.76m

Information Services Division IT spending: 2013/14: €13.7m 2012/13: €9.02m

Top suppliers 2013/14

Dell: £2.18m BT iNET: £1.54m Q Associates £1.34m Pervasive Networks £510,000 Oracle £503,000 Top suppliers 2012/13 Dell: £1.55m Q Associates £961,000 Oracle: £847,000 BT iNET: £523,000 Viglen £353,000



2) University of Cambridge

Despite being one of the world's oldest universities – it was founded in 1209 – Cambridge does not appear to be dragging its feet when it comes to investing in technology. In 2013/14 it spent £21.6m on IT hardware, software and services, a 14 per cent hike on the previous year.

2013/14 IT spend: £21.60m 2012/13 IT spend: £18.87m

Top suppliers 2013/14

Dell £4.8m Apple £1.18m Oracle £1.13m Ampito Ltd (trading as Vanix) £719,000 Insight Direct (UK) Ltd £676.000

Top suppliers 2012/13

Dell £2.55m Oracle £1.50m Apple £1.18m World Of Computers Ltd £911,000 Insight Direct (UK) Ltd £708,000

3) Imperial College London

Science-focused institution Imperial College ranked third in Europe in the *Times* Higher Education World University Rankings 2014/15. It also finished third in our rankings after shelling out £21.6m on IT hardware, software and services in 2013/14. Underlining its commitment to scientific research, Imperial recently upgraded one of its supercomputers and in September launched a public competition to name it.

Imperial would not break out what it spent with its top suppliers individually, citing commercial sensitivities.

2013/14 IT spend: £21.60m **2012/13 spend:** £20.40m

Top suppliers 2013/14 in alphabetical order (total spend of £8.6m) Apple BT Business Direct HP Oracle Reflex Ltd

Top suppliers 2012/13 in alphabetical order (total spend of £6.2m) Apple DABS HP Oracle Q Associates



4) Open University

As by far the UK's largest university by student numbers, it's no surprise that Open University has a bigger IT kitty than most. It claims to have about 200,000 students and 1,100 full-time academic staff and to have helped 1.89 million people worldwide to achieve their learning goals since it launched in 1969. OU could only give us spending figures for its central IT services unit and was unable to gather information on its top-five suppliers in the time requested. 2013/14 IT spend: £13.42m 2012/13 IT spend: £14.80m

Top suppliers 2013/14 Harvey Nash £5.29m HP £804,000 Dell £618,000 Oracle £589,000 Civica £514,000



5) University of Birmingham

The UK's first "redbrick" university, established as it was by Queen Victoria by Royal Charter in 1900, is also a big consumer of IT.

The University of Birmingham could only provide us with IT spending figures for its central IT services department, meaning the actual amount spent across all departments is likely to be much higher. It also declined to divulge supplier spending figures, citing potential commercial sensitivity. Its largest supplier in both 2013/14 and 2012/13 was PC builder Stone, based in nearby Staffordshire.

2012/13 spend: £10.42m

Top suppliers 2013/14 Stone Pervasive Networks Prolinx Dell Ex Libris

Top suppliers 2012/13

Stone Pervasive Networks Prolinx OCF Dell



2013/14 spend: £13.25m

6) University of Exeter

Ranking seventh in the most recent *Times and Sunday Times Good University Guide*, Exeter University has 19,300 students and employs 2,200 members of staff across its six colleges and three campuses.

Its IT spending rose by eight per cent between 2012/13 and 2013/14.

2013/14 IT spend: £11.74m **2012/13 IT spend:** £10.91m

Top suppliers 2013/14

SSE Contracting £1.68m Data Integration £1.48m HP £900,000 Dell £581,000 Cablecom £401,000

Top suppliers 2012/13

SSE Contracting £1.44m Data Integration £1.37m Dell £1.17m Apple £457,000 HP £385,000



7) University of Bristol

Founded in 1876, Bristol is one of the oldest and largest UK universities, with an undergraduate population of more than 15,000 last year. It ranked in the top 30 universities globally according to the most recent QS World University Rankings.

Brit PC builder Viglen was its largest IT supplier in both 2013/14 and 2012/14, with high-performance computing specialist Clustervision also favoured in both years.

2013/14 IT spend: £11.37m **2012/13 IT spend:** £8.01m

Top IT suppliers 2013/14 Viglen £2.41m Clustervision £2.05m Unit4 Business Software £1.08m Capita IT Services. £812,000 Learning Science £445,000

Top suppliers 2012/13

Viglen £2.27m Synetrix £691,000 On-Line Computers £431,000 Apple £403,000 Clustervision £372,000



Position	2013/14 IT spend	University	2013/14 top supplier
8	£9.40m	Sheffield Hallam University	Phoenix Office Supplies
9	£9.14m	Manchester Metropolitan University	DTP
10	£8.13m	London School of Economics	Sungard Availability Services
11	£7.80m	Durham University	Viglen
12	£7.47m	University of Bedfordshire	Logicalis
13	£7.37m	London Business School	Service Point
14	£7.29m	Middlesex University	Dell
15	£7.19m	Bournemouth University	Solid State Solutions
16	£7.05m	London South Bank University	Data Integration
17	£6.35m	University of East London	N/A
18	£6.35m	University of Dundee	Dell
19	£6.20m	University of Bradford	DTP
20	£6.20m	Leeds Becket University	Dell
21	£6.11m	Plymouth University	N/A
22	£6.00m	University of Hertfordshire	Alternative Networks
23	£5.86m	Queen's University Belfast	Dell
24	£5.73m	Northumbria University	DTP
25	£5.70m	Queen Mary University	SCC
26	£5.51m	Birmingham City University	Canon
27	£5.38m	University of Brighton	DTP
28	£5.03m	Glyndwr University Wrexham	ХМА
29	£4.91m	Brunel University	Viglen
30	£4.58m	Loughborough University	HP
31	£4.53m	University of East Anglia	Tectrade Computers
32	£4.39m	University of Greenwich	Stone
33	£3.98m	University of Bath	BT IT Services
34	£3.80m	University of Huddersfield	Stone
35	£3.51m	Teeside University	DTP
36	£3.37m	University of Central Lancashire	DTP
37	£3.30m	Heriot-Watt University	Proact
38	£3.20m	Edinburgh Napier University	Capita IT Services
39	£3.12m	Bath Spa University	N/A
40	£2.85m	Swansea University	Viglen
41	£2.75m	University of Gloucestershire	Viglen
42	£2.74m	Cranfield University	Getech
43	£2.63m	University of Glasgow	Dell
44	£2.44m	King s College London	On-Line Computers
45	£2.41m	University of Cumbria	ANS Group
46	£2.38m	University of Staffordshire	Phoenix Computers
47	£2.30m		Viglen
48	£2.29m	Cardiff Metropolitan University	BITIServices
47	£2.2/m	Glasgow Caledonian University	Dell
50	£2.19m	Soutnampton Solent	NEIConnection Systems
51	£2.18m	Harper Adams University	Workspace Technology
52	£2.02m	London Metropolitan University	Viglen
53 E/	£1.80M	Abartey University	Stone
54	£1./5m	Abertay University University Wales Trinity St David	
55	£1.41111	SOAS University of London	Northgate Aringo
50	£1.37III	Contohury Christ Church University	Civico
58	£1.00m	Goldsmiths University of London	
59	£1.20m	London School of Hygiene & Tropical Medicina	GV Multi Modia
60	£1.2011	University of Chichoster	
00	L1.12111	University of Unichester	Dell

Spend w/ top supplier	2012/13 IT spend	2012/13 top supplier	Spend w/ top supplier
£813,000	£7.55m	Phoenix Office Supplies	£813.000
£1.37m	£6.59m	DTP	f1.37m
N/A	£6.92m	Sungard Availability Services	N/A
£503.000	£3.67m	Viglen	£503.000
£1.70m	£5.06m		f1.70m
£652,000	£5.93m	Service Point	£652.000
f1.51m	N/A	Dell	f1.51m
f1.01m	f4.61m	Solid State Solutions	f1.01m
£652,000	f 6.9m	Data Integration	£652.000
N/A	£1.98m	N/A	N/A
£591.000	N/A	Dell	£591.000
£566.000	£6.10m	DTP	£566.000
£749.000	N/A	Dell	£749.000
N/A	£8.35m	N/A	N/A
£745.000	£5.50m	Alternative Networks	£745.000
£1.04m	£5.88m	Dell	£1.04m
£1.49m	£5.47m	DTP	£1.49m
£715.000	£7.10m	SCC	£715.000
£550.000	£8.51m	Canon	£550.000
N/A	£4.47m	DTP	N/A
£75.000	£6.59m	ХМА	£75.000
£939,000	£4.99m	Viglen	£939,000
£768,000	£3.95m	HP	£768.000
£697.000	£5.03m	Tectrade Computers	£697.000
£720,000	£4.04m	Stone	£720.000
£775,000	£3.79m	BT IT Services	£775.000
£456,000	£3.77m	Stone	£456,000
£522,000	£3.15m	DTP	£522,000
£480,000	£4.82m	DTP	£480,000
£459,000	£3.00m	Proact	£459,000
£312,000	£3.04m	Capita IT Services	£312,000
N/A	£1.75m	N/A	N/A
£368,000	£2.74m	Viglen	£368,000
£402,000	£2.78m	Viglen	£402,000
£347,000	£2.61m	Getech	£347,000
£1.44m	£1.48m	Dell	£1.44m
£273,000	£3.41m	On-Line Computers	£273,000
£563,000	£2.77m	ANS Group	£563,000
£569,000	£3.30m	Phoenix Computers	£569,000
£328,000	£2.47m	Viglen	£328,000
£335,000	£2.36m	BT IT Services	£335,000
£303,000	£2.08m	Dell	£303,000
£958,000	£1.44m	NETConnection Systems	£958,000
£304,000	£1.81m	Workspace Technology	£304,000
£502,000	£1.77m	Viglen	£502,000
£259,000	£1.30m	Stone	£259,000
£552,000	£1.73m	Q Associates	£552,000
N/A	N/A	European Electronique	N/A
£205,000	£1.85m	NorthgateArinso	£205,000
£157,000	£1.30m	Civica	£157,000
£511,000	£731,000	Dell	£511,000
£210,000	£1.22m	GV Multi Media	£210,000
£160,000	£889,000	Dell	£160,000





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