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Facing the challenge of IT and education



Software licensing headaches, tech support nightmares and the cyberbullying challenge – keeping on top of the legal and technical implications of the education sector's growing dependence on IT isn't getting any easier.

While significant government investment over the past few years has ensured that schools, colleges and universities in the UK are blessed with the best technology, many of those involved with the implementation – from head teachers to network managers and junior IT support staff – can find the scale of the progress overwhelming.

Fortunately, help is at hand and, for this year's special BETT show supplement, *EducateIT* has teamed up with education technology website Edugeek.net to provide real-world advice to help you rise to the challenge. We tackle the trickiest tech questions of 2008, and explain how your school or college can use the latest software to ensure you're making the best use of the tools available to you.

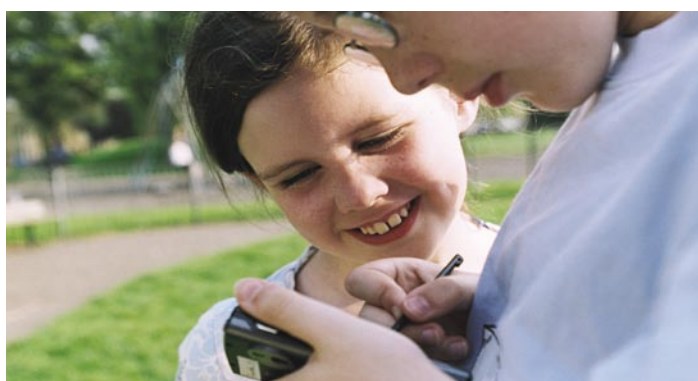
As well as advice on the new breed of software that's design to help stamp out cyberbullying, *EducateIT* provides the tools to ensure network managers make the best use of their time and discusses how to tackle new IT legislation that promises to place higher demands on IT staff.

Paul Trotter



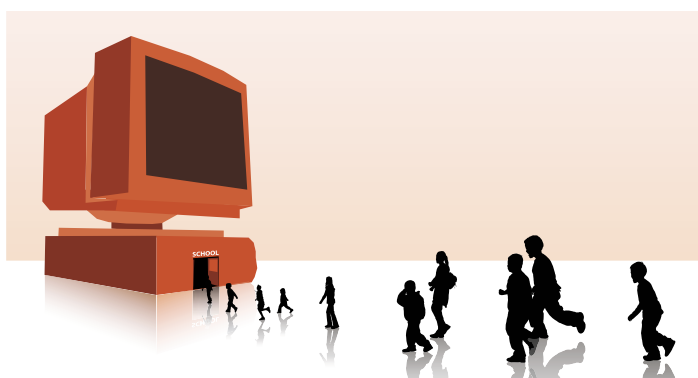
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From 'happyslapping' to online stalking, technology has made it easier than ever for bullies to torment their victims. Jonny Evans looks at the technology solution

Slamming cyberbullies

Picture posed by actors



Violence among teenagers may claim the headlines, but for many educators virtual violence is a bigger problem. Cyberbullies use mobile phones or email to send sexist, homophobic and racist messages. They attack difference - targeting physical or mental disability, cultural or religious background, appearance, wealth or class. In some cases bullies physically assault other children and then post online images of fights, or broadcast recordings of attacks using SMS text messages.

Symantec UK's internet safety advocate Caroline Cockerill explains: "Cyberbullies tend to use the same tactics as they do in the offline world. They torment and tease other kids from a distance using email, websites, online games, instant messaging, blogs and community sites like MySpace or chatrooms. Online taunts sting just like they do offline, but on the internet cyberbullies can often stay anonymous, hiding behind fake email addresses and screen names."

The impact of cyberbullying on children can be huge. One pupil explains: "I felt that no-one understood what I was going through. I didn't know who was sending me these messages, and I felt powerless to know what to do."

Cockerill observes: "There's no doubt cyberbullying can be devastating. Some bullies harass targets with a barrage of instant messages - 'everyone hates you', or 'you are a loser'. Others create mocking websites, impersonate their targets to post fake dating ads or hack into their email account."

It's not just children who get bullied, teachers get it too: "The accusation about me which the students put on their website was horrendous. Within hours it seemed that the whole school had read this message," one harassed teacher tells us.

Educators have years of experience to call on when handling violent bullying, but social networks, the internet and mobile phones are harder to police. And as relatively new manifestations, there's little available

information to help teachers cope. What can be done to detect, monitor and act against such cyberbullies?

Government responds

UK government research suggests that up to 34 percent of 12-to-15-year olds have been victims of cyberbullying. In response the Department for Education and Skills (DfES) has launched the 'Safe to Learn' campaign. A range of organisations and experts including social-networking sites Bebo (bebo.com) and MySpace (myspace.com), and video-sharing site YouTube (uk.youtube.com), are involved in the scheme.

Under Safe to Learn school governors and headteachers must monitor all electronic communications on school premises, or those undertaken as part of offsite school activities. Teachers are also being urged to take a firm stand against pupils who use mobile phones and the internet to bully other children. Educators are being given powers to confiscate mobile phones, in turn being equipped with the information they need to remove offending material from websites, including social networks.

Secretary of State for Children, Schools and Families Ed Balls says: "The vast majority of schools are safe environments to learn in. However, we know that behaviour, particularly bullying, is a key concern for parents and bullying of any kind is unacceptable. Cyberbullying is particularly insidious as it can follow young people wherever they go and the anonymity that it seemingly affords to the perpetrator can make it even more stressful for the victim."

"One message that I want to get across to young people is that bystanders can inadvertently become perpetrators - simply by passing on videos or images, they are playing a part in bullying," he added.

One way teachers can watch for cyberbullying is to go undercover. A staff

member from one school (who asked not to be named) says: "MySpace advised us to have an undercover presence on its site."

"We do this, and monitor the service. I've also noticed a lack of education in how to safely use these services, kids will put their mobile number on their MySpace profiles, for example. They don't understand the risks."

"I think it's because computers have for so long only been about spreadsheets, and the way we teach computer skills now doesn't promote online safety. We're only three or four years into the digital age, so there may be a knowledge gap there."

Education for all

Teachers, parents and children must all get wise online. Simon Fuller is managing director of Grid Learning, which runs Grid Club (www.gridclub.com), a huge online learning resource for 5-to-12-year olds, designed to support the National Curriculum in an entertaining way. He's also the man behind Cyber Cafe, an online social space that teaches children to stay safe online.

"Technology moves on, we need to keep up," he says. Fuller rejects the notion that technology is the problem, urging a much larger response from government, teachers and parents. "You can't blame schools for cyberbullying, they are given a curriculum they have to teach. Education departments need to figure out how to teach cybersafety as part of that curriculum so children know what to do," Fuller says.

Children want to learn, too - Cyber Cafe attracts up to a million visits each month, he says. "Children engage with the fun and the wonder of this wonderful, positive technology, and don't feel any need to use it in a negative fashion. We have to look at ourselves and the world we're in. I think we've been remiss in not spending enough time helping teachers, parents and children engage in dialogue about these things. >>



Grid Club and Cyber Cafe are popular online social spaces that help teach children to stay safe online. Cyber Cafe alone attracts up to a million visits each month



Safer surfing through learning: There are plenty of resources designed to help teachers, parents and children better understand the internet in general, and cyberbullying in particular

"The issue is people, not technology. Parents have an incredibly important role to play, they must speak with their children to find out what they are doing with their mobiles and computers," Fuller explains.

Securus Software's education and child-protection advisor, Sally-Ann Griffiths observes: "I think many teachers feel on the back foot because pupils are more tech-savvy than they are. But once cyberbullying is identified, the core skills teachers already possess in dealing with bullies are equally useful with on- and offline bullies."

There are plenty of resources designed to help teachers, parents and children better understand the internet in general, and cyberbullying in particular. "A better solution is where children are educated enough to know what's right and wrong," Fuller says.

Social-networking websites

It's a learning curve for everyone, and social-network sites are attempting to improve awareness. For example, a spokesperson for popular teen hangout Bebo said the site is ready to play its part fighting bullying.

"Antisocial behaviour is an aspect of the society we live in; to help parents, teachers and young people navigate these issues online, we provide a series of safety educational materials. Internet users are not anonymous; their activity creates a digital record of behaviour which, should members breach our Terms of Service, can be used to assist investigations as required."

Bebo is actively involved in a number of policy groups which address various aspects of this. Such groups include: the Home Office Internet Taskforce; the Department for Children, Schools and Families; the Cyberbullying task force; and Beatbullying.

Bebo's free educational resources are based on up-to-date guidelines on online safety issues and were developed in collaboration with the groups listed above. Dr Rachel O'Connell, chief safety officer at Bebo, hopes the guidance will help adults and teachers develop an understanding of social sites so they can "better inform and educate youngsters how to use them safely."

While not part of the DFES initiative, a Facebook spokesperson says: "When users register on our site, they agree to our Terms of Use which state that they cannot 'intimidate or harass another'." The representative added, "Facebook does not condone cyberbullying... and will disable accounts that are found to be intimidating others in any way."

Popular Google-owned video-sharing website YouTube is no stranger to instances of bullying appearing online through its service. With 6,000 hours of content being uploaded to the service every minute, in early November 2007 Google introduced a much improved flagging system to help users police inappropriate content.

A spokesperson says: "YouTube has clear policies that prohibit inappropriate content on the site. Our community understands the rules and polices the site for inappropriate material.

THE CORE SKILLS TEACHERS ALREADY POSSESS IN DEALING WITH BULLIES ARE EQUALLY USEFUL WITH ON- AND OFFLINE BULLIES

"When users feel content is inappropriate they can flag it and our staff then review it as quickly as possible to see if it violates our Terms of Use. If users repeatedly break these rules we disable their accounts."

Flagged messages are sent to a 24-hour response team, which will check the complaint, vet the video and can take offending clips offline. Should YouTube's team not withdraw the video, teachers and parents have used the service's support forums to request their removal.

But the problem remains critical. Pupils still habitually make personal details available within their social-networking profiles, and educators report that social networks are slow to act when inappropriate behaviour has been reported.

Technology solutions

Technology firms have a major part to play in combating bullies. Many schools rely on blocking software - including the parental controls offered within modern commercial operating systems such as Windows XP and Vista, and Mac OS X, as well as the settings within internet browsers such as Mozilla Firefox or Internet Explorer. Schools may also invest in dedicated internet blocking packages, such as Cyber Patrol or Net Nanny.

Critics point out that overweening censorship of terms and URLs can also filter out perfectly acceptable educational resources. They argue that a better direction is to promote a sense of responsibility in children, while monitoring the decisions they make. Monitoring software offers pupils the freedom they need to make their own mistakes, while enabling schools to effectively police unacceptable behaviour.

This viewpoint is gaining recognition. October 2007 saw Forensic Software's Policy Central Enterprise computer usage monitoring software rolled out as part of the London Grid For Learning (LGfL), an educational-focused broadband initiative. This software, which monitors web activity, instant messaging and email for inappropriate behaviour, is being put in place to support antibullying operations across 2,600 of London's maintained schools.

Policy Central lets educators enforce acceptable-use policies for all computer users in a school. It's capable of weeding



out all kinds of unacceptable use, including sexist, racist or homophobic remarks. Available only for Windows PCs, the software watches for misuse, then tracks, monitors and records such incidents. Similar solutions for monitoring Windows Mobile clients and Apple Macs are on the company's roadmap.

Policy Central is a powerful solution, it doesn't just watch information transmitted using the internet - it also monitors all screen content and keyboard activity, and can check compressed files and data held on external drives, including USB flash drives.

The software relies on keywords related to misuses (pornography, swearing and violence, for example) and lets teachers define specific words and phrases to watch. While Policy Central keeps extensive records of where violations have taken place - including screenshots of the offences as they happen - it moves into action only where there's a problem - privacy is sacrosanct.

"Our solution moves away from blocking sites to monitoring usage, so you can educate pupils why they shouldn't do what they have done," explains Forensic Software's sales director, Marie Bailey.

"Monitoring helps you work out why students are doing what they are doing. Perhaps some violations come from a time when a new teacher is taking a lesson, which helps identify a training need."

Another vendor, Securus Software, offers the Securus monitoring system. Like Policy Central, Securus watches for inappropriate words and phrases, both using the internet or working offline in an application such as Word. This system also captures screenshots

name to the watchlist and monitoring proved bullying had taken place, when and where, and who had been doing it."

Of course, many bullying victims don't report their suffering for fear of reprisal.

Monitoring school network traffic also rings the alarms when external threats emerge, Bailey explains: "If a teacher is targeted and receives a threatening email, monitoring will capture the moment and leave an audit trail as evidence."

Securus was recently adopted by a Worcester School - Bishop Perowne College. Five months after it was put in place, the school confirmed a 30 percent decline in cyberbullying. Pupils are aware they're being monitored and this focuses them on learning, not abusing, the technology at their disposal.

Independent research among 96 schools conducted on behalf of Securus by Nathalie Noret of York St John University saw schools claiming the solution to be 100 percent effective in dealing with cyberbullying. In comparison to previous solutions, they also reported that control over inappropriate messages written in Word climbed from 39.4 percent to 92.7 percent.

Similar results have been reported with Forensic Software. IT manager at the Sutherland School, Trevor Jones, explains: "In our first 12 months we saw a 30 percent reduction in incidences of inappropriate behaviour, once pupils knew monitoring was in place such behaviour plummeted."

Taking a little financial burden off individual schools, local education authorities are moving to deploy software from Securus or Forensic across multiple sites.

Richard Lawson of Telford and Wrekin Borough Council explains the impact: "Students are now safer and more productive, as the

software deters inappropriate computer and online-related behaviour."

Cultural shift?

Technology plays its part dealing with the symptoms, Grid Learning's Simon Fuller stresses, but a paradigm shift is required.

Education doesn't end at the school gates, and parents must also seize responsibility to tackle inappropriate uses of technology.

"We must create a culture in which bullying is recognised as the problem it is," says Fuller. "Teachers must teach children how to protect themselves online, children must understand the etiquette of behaviour and parents must understand the way their children use IT." ☒

PARENTS MUST ALSO SEIZE RESPONSIBILITY TO TACKLE INAPPROPRIATE USES OF TECHNOLOGY

of every violation, along with details of the user, workstation, time, date and nature of the incident. Evidence is stored on a proprietary server, so remains pristine.

Sally-Ann Griffiths explains: "In the old days it was about Web 1.0 technology, controlling where children go. Today's children are digital natives and use the web for much more complex things - social networks or online games. Blocking and filtering wraps them in a bubble, but they can still find what they need using the PC at their mate's house."

Unlike blocking solutions, monitoring lets stakeholders identify and react to inappropriate behaviour, offering a chance to explain why such abuse is unacceptable. It also offers an early warning system.

"In one incident, a teacher suspected a pupil was being bullied though the child had said nothing. The school added the pupil's

Useful sites

Leading UK antibullying websites:

www.bullying.org,
www.cyberbullying.org

Grid Club Learning Centre:

www.gridclub.com

Government advice on cyberbullying:

www.direct.gov.uk/cyberbullying

Government bullying guidelines:

www.teachernet.gov.uk/wholeschool/behaviour/tacklingbullying

Bebo Online Safety Resources:

www.bebo.com/safety

Forensic Software (Policy Central):

www.forensicsoftware.co.uk

Securus Software (Securus):

www.securus-software.com

Becta:

www.becta.org.uk

Department for Children, Schools and Families (DfCSF):

www.dfes.gov.uk/bullying

Antibullying courses for educators:

www.bullyingcourse.com

Childnet:

www.childnet-int.org

Bully Free Zone:

www.bullyfreezone.co.uk

Bullying UK:

www.bullying.co.uk

Net Nanny:

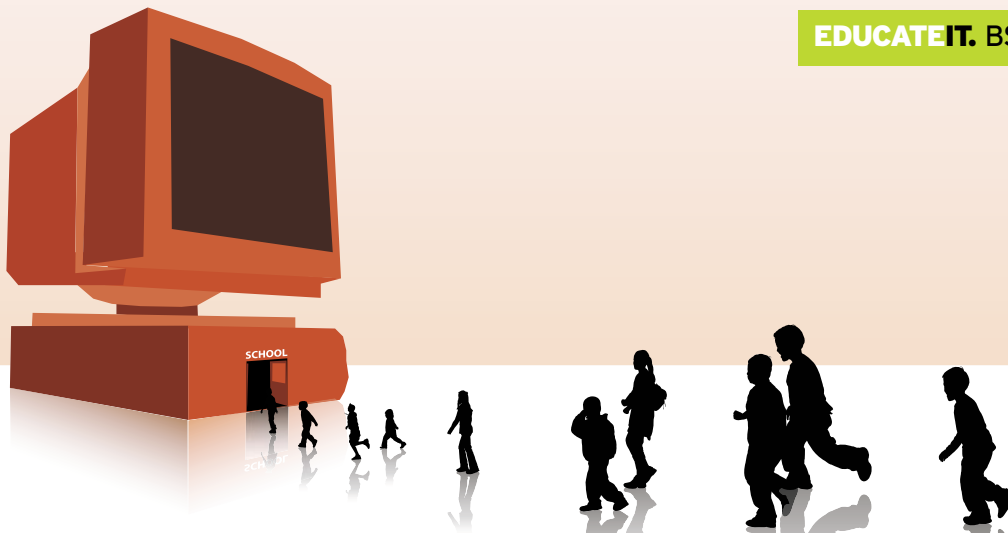
www.netnanny.com

Cyber Patrol:

www.cyberpatrol.com

Practical Advice

- Never respond to malicious texts, emails
- Don't believe everything you see or read
- just because someone claims to be only 15 doesn't mean they are
- Save ALL evidence
- Report ALL cyberbullying
- Keep your passwords safe
- Never provide personal details online
- Never send a message in anger
- Don't open messages from strangers
- Never arrange to meet a stranger



Building Schools for the Future: HERO OR VILLAIN?

The government's BSF scheme is supposed to revolutionise IT in schools. But technician and IT director Tony Sheppard says it's not the holy grail

When the government announced it was investing billions of pounds to give UK schools a facelift, there was a collective sigh of relief. Building Schools for the Future (BSF) seemed to offer a clean slate for school campuses, and an opportunity for staff with IT skills to build a needs-led system, rather than scraping together what they could from a variety of funding sources.

Not quite. When network managers and IT technicians discovered that part of the plan was to outsource IT, that 'collective sigh' became a cacophony of screams. After years of battling against the middleware and managed services that stood in the way of progress, it seemed like a step backwards.

The likelihood that schools will have to accept what they're offered means network managers could see years of good work undone. In other words: the 'raised baseline' of facilities and services may be *below* what tech-savvy schools are already providing.

Furthermore dependence on a third party could mean support response times drop. It may engender a lack of flexibility, as all requests have to pass through a central system. And any additional resources needed to make the change will, of course, cost money.

But there are those who see BSF as a bright hope, the chance to force big companies to set up systems in a way that will benefit schools. Such optimists sense a chance to collaborate with other schools and build a long-term plan for IT in education.

In reality the pros and cons of BSF fall somewhere between these two (forgive the pun) schools of thought. With the first group

of BSF beneficiaries now in place we can see what's actually being provided by Managed Service Providers. In essence, it boils down to one thing... you get what you ask for.

Get represented

The most important factor is ensuring your school is correctly represented to the local education authority (LEA). Make sure the needs of your school are understood, rather than accepting what's decided on your behalf.

That sounds simple. Talk to support teams in schools involved in the process, however, and it quickly becomes evident that each area is different. Some will push for IT to be part of the main BSF tender along with buildings and other services, while others push for a separate IT contract. Some schools will use LEA central support, while still others employ a third-party to set it all up before leaving the support process to specialist teams employed within the school.

We met up with BSF provider Research Machines (RM). RM has several Managed Service contracts and was admirably frank about which aspects have worked - and which haven't. Indeed, in some areas RM had to do a complete rethink to ensure that schools got what they needed. While many contracts have been successful, some schools remain unhappy and others have opted out.

In some cases, independent, innovative schools aren't bringing their experience to the table. Stakeholders know this is a problem but there is no one-size-fits-all solution. Each local education partnership (LEP), and each series of schools have different requirements.

So if you work in IT, what should you and *your* school do? First, recognise a few facts:

1. No matter what architects, accountants or consultants say, each school has to be designed and equipped in a manner that suits the specific needs of that school, its students and its staff. This should not be confused with repeating something that has been successful elsewhere. This is a chance to be innovative from the word go.
2. Do examine what happened before and elsewhere, however. All avenues should be explored. A change in the models of learning here, a change in the use of technology there... Often small changes have the most dramatic impact.
3. Ensure there's representation for your school at the right levels. Often this may mean that only a handful of people get involved, but make sure senior leaders know what's required and try to ensure a level of accountability is put in place.
4. If you are an IT manager and you're told your job is safe, get it in writing. Down the line senior leaders may find themselves with the difficult decision of accepting that the impact of a managed service could be larger than the impact you as an individual deliver. Don't be scared to challenge this, and even carve out a different role for yourself in the school.
5. Take all costs, technical specifications and future plans with a pinch of salt. Once preferred-bidder status is in place you get >>



a chunk of negotiation before financial close. This is when you can get the best deals for your school and make sure the service provider knows exactly what everything means.

6. There are technical and functional specifications out there to deal with new builds. Make sure you are aware of them, understand how they apply to your school and ensure they're being followed. This is the raised baseline that schools should have as a minimum standard.
7. The specifications are the baseline - not the limit. If your school wants to push the envelope it shouldn't be restricted by a service provider. If it cannot deliver, it shouldn't have the contract.
8. Keep senior leaders informed of changes to technology requirements. Inform them of the uses of new technology, where it is working and where it isn't.
9. If the contractor is delivering what you originally asked it to do but still isn't up to scratch, the contractor is not to blame. Many companies get a bad name because they delivered only what was asked of them. Before you complain, check what was in the paperwork. Remember the contractor will often be flexible and try to work on compromises. After all, it wants the contract again in a few years' time.
10. If you get 'TUPEd' (Transfer of Undertakings - Protection of Employment) it is not all doom and gloom. Trust that if you have the right skills you'll rise to the top. There aren't enough technicians or network managers with the right skills in schools. This may be your chance for more training and experience - and to move on.

A pragmatic approach

We can all sit back and say that with infinite money and infinite time, we would come up with the perfect school IT system.

We could cater for independent and personalised learning; give staff and learners a range of tools for the various tasks; provide intuitive systems and applications that allow for skill building; deliver a fully optimised system allowing for editing of streaming media on wireless laptops and desktops; all of which can be accessed by any and every device you can conceive...

The reality is we all have to pick, run and adapt what works best based on limited budget and time, and the skills of support staff, teachers and, yes, students. We have to operate around staff and leaders who are

reshape capital investment

Building schools for the future

home | help with this site | about BSF | what about me? | news | BSF projects | FAQs | documents | links | contact us

- about BSF
- process
- educational vision
- partners
- other funding
- LEPs
- exemplar designs

department for
children, schools and families

partnerships for schools

Better secondary school buildings to support educational reform

Building Schools for the Future (BSF) represents a new approach to capital investment. It is bringing together significant investment in buildings and in ICT (Information and Communications Technology) over the coming years to support the Government's educational reform agenda.

The Government is committed to devolve significant funds – about £3 billion in 2005-06 – to local authorities (LAs) and schools to spend on maintaining and improving their school buildings. But it also wants to promote a step-change in the quality of provision. That is the focus of Building Schools for the Future (BSF).

BSF – worth £2.2 billion in its first year (2005-6) – aims to ensure that secondary pupils learn in 21st-century facilities. Investment will be rolled out to every part of England over 15 waves, subject to future public spending decisions.

- By 2011, every LA in England will have received funding to renew at least the school in greatest need – many will have major rebuilding and remodelling projects (at least three schools) underway through BSF and the remainder will have received resources through the Academies programme or Targeted Capital Fund.
- By 2016, major rebuilding and remodelling projects (at least three schools) will have started in every LA.

Building Schools for the Future: Far from the silver bullet for IT in education, BSF has created plenty of problems. But if handled correctly it's an opportunity for change and development

happy to buy white elephants that seemed a good idea at the time but don't work out due to a lack of resources.

We have to operate with other technicians who may not have a 'can-do' attitude and are happy to live in limbo with no wish to try something new. We have to operate around school politics, which can mean that the most economically sound or educationally viable projects are ignored or dropped.

No industry is perfect and education has its own range of issues. One of the big bonuses is the amount of collaboration that goes on, locally, regionally and nationally.

Many schools have reasons to be concerned about BSF. However, there are plenty of reasons to be excited, opportunities that can be taken and chances to get schools to deliver something special.

It will take perseverance, it will take a lot of representation and it will take a chunk of compromise on all sides.

The proof will be in six years' time, when the first wave of schools renew their managed service contracts. Will they go for

THIS MAY BE YOUR CHANCE FOR MORE TRAINING AND EXPERIENCE



an extension with the incumbent or will they drop the current partner?

We will all have to wait and see, but in the meantime we should be aware of what's happening and what we can do to be part of it, or make sure the right people in our schools are part of it. ☒

Tony Sheppard used to work as a technician at a leading City Technology College before moving to another local Technology College as Network Manager. He has since become Director of IT and a member of his college's Senior Leadership Team. He has been involved in many forms of peer and online support for technical staff in schools over the past nine years, including running events on behalf of EduGeek.net at the BETT show. Tony works as a Technical Consultant on behalf of the ICT in Education team, part of Children and Young People's Services, Northamptonshire County Council.



Software licensing



click here
to install

Just because you own a software disc, it doesn't mean you can install it on any PC in school. Ric Charlton investigates the thorny subject of licensing...

Licensing can be a huge headache for a school network manager as many teachers and students don't understand that they can't simply install any software they like without breaking the law.

It's important to understand that the headteacher is ultimately responsible if there are discrepancies in a school's licences. Governors can also be culpable if it's found that they were aware of an issue and no action was taken. However, it's usually the network manager's job to monitor and ensure licence compliance - so they too could lose their job if the school receives a hefty fine. It's essential that your IT team and your school's senior management keep on top of the legal implications of software licensing. But it's not all doom and gloom - software suppliers are keen to establish workable licensing rules for schools and, as we'll discuss later, you can get your hands on some applications that don't ship with any restrictive licences at all.

Licence types

Let's start with magazine cover discs. Just because a piece of software is 'free' on the front of a magazine does not give you the right to install lots of copies of it. Sometimes the licence agreement will state this. More often than not it doesn't expressly tell you that you *can't* install multiple copies (which in legal terms equates to the same thing).

Next up: demos... not so much a licensing issue as a pain in the behind. These are often time-restricted and many are awkward to install. Installing such pieces of software can be time-consuming, and if you don't buy the full product the demo has to be removed at a later stage - and it'll be you doing the removal.

The next thing to consider is concurrent licensing. This can be a cost-effective way of purchasing software that's needed by a small number of people on a large number of computers. For instance, you might purchase 20 concurrent licences for a piece of software, and this would allow you to install the software on as many computers (at your site) as you like as long as no more than 20 copies are being used at any one time.

Concurrent licensing is a sensible approach, but it can be a nightmare to manage. Most software sold under this model has no means of limiting the number of copies that can run at one time. It becomes very difficult to prove that you are complying with the licence. If you do opt for concurrent licensing, go for programs that have good 'licence servers' - Sibelius is one.

Another convenient option is the site licence. Such a licence allows you to install as many copies of a software title as you want - as long as you limit yourself to one geographic location. It's a neat solution, although there are sometimes clauses such as Adobe's 'up to 500 PCs' rule. One major advantage is that the cost of an already-licensed piece of software does not have to be added to the equation when adding another PC to your network.

Open-source software

Of course, there is a way to do away with licensing headaches altogether. Open-source software - which means that the source code is freely available and can be edited by anyone under the terms of the agreement - has been growing in popularity over the past five years. The most common open-source licence is the GNU General Public License. In essence this states that anybody

is free to use the software without charge. Users can alter the source code as long as it too is made freely available.

Many schools are adopting open-source software to reduce the costs associated with publishing applications to thousands of users over the internet. It also means that features can be added without having to pay for bespoke software that's written from scratch.

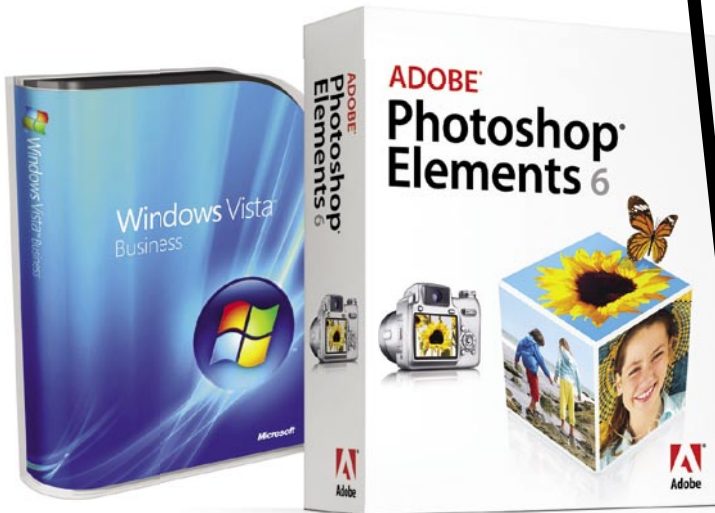
However, not all 'free' licences are as they seem. Some software which initially appears to be open source is actually 'freeware'. Such applications tend to be written by individuals and then made freely available on the internet, but it's important to remember that the licence agreements can vary wildly and it's not always acceptable to install such tools across a network without paying a fee.

Finally, watch out for shareware. Shareware is similar to freeware in that it can be freely downloaded over the internet. The difference is that there is generally a trial period (usually 30 days) after which a full licence must be purchased to legally continue using the software.

Often, such software doesn't stop working but it is still a breach of the agreement to continue using it without purchasing a licence. Freeware and shareware licensing can be a can of worms best avoided within an educational establishment - unless of course the licence terms are acceptable.

The Microsoft way

Microsoft has its own way of licensing. In the education sector there are two main types of licence to choose from - Select or Schools Agreement. Under Select you pay a one-off 'fee' whenever you buy a licence, while under >>



WITH SUCH AN OVERWHELMING ARRAY OF LICENCE TYPES IT CAN BE HARD TO KEEP TRACK OF THE LICENCES YOU'VE PURCHASED

a Schools Agreement you pay an annual fee and software assurance (upgrades) are included. Under Select, software assurance can be purchased separately.

If you choose Select licensing, you are given various options when you purchase licences. The usual choice is to license per device (also known as per seat) where a software licence belongs to a particular computer or user. Along with these licences are 'External Connector Licences' for server products. These enable you to allow access to applications when offsite - through a website, for instance.

Ongoing costs

In addition to the upfront cost of a software licence, there are additional ongoing costs to consider. Three of the most common are maintenance fees, software assurance and subscription charges.

Maintenance fees are often charged to ensure you receive support and upgrades on an ongoing basis. Such deals can prove cheaper in the long run, provided a piece of software is regularly updated and the new features are worthwhile. You must remember that these fees will increase if more licences are purchased for the piece of software.

Software assurance is similar to a maintenance fee in that it allows you to receive upgrades for the software. The difference is that technical support is generally not included in the cost - this may be because support is an additional charge or is already included. Subscription charges tend to be payable for 'hosted' applications

and services provided offsite. An example might be access to an internet resource where a licence isn't really applicable because no software is locally installed.

The payment of subscription charges can be complicated and it's important to read the terms and conditions before signing up as you may find you aren't permitted multiple connections or access to your data after the subscription expires.

Licence management

With this overwhelming array of licence types it can be hard to keep track of the licences you've purchased. However, help is at hand as several software products can provide support by auditing your PCs. Paid-for auditing tools are available from Microsoft (SMS Server), NetSupport, Research Machines and Ranger. There are also open-source alternatives (such as OCS Inventory) and free alternatives (Spiceworks). In this way, licence management doesn't have to be expensive.

Another important licence-management technique is factoring in licences to the procurement and ongoing costs of PCs. In this way it's difficult to forget to purchase any additional licences that may be required when replacing or upgrading computers. This should then be continued through the change-management and configuration-management processes of Framework for ICT Technical Support (FITS). ☒

Ric Charlton is a site administrator for EduGeek.net, and a high school network manager in Lancashire

Licence to bill? Huge software companies have their own methods of licensing software. Microsoft, for instance, offers two main types of education software licence. And just because a program is offered 'free' on a magazine cover mount, don't think you can install it at will. The bottom line: if it doesn't say you can install multiple copies, you can't

Useful links

FAST (Federation Against Software Theft)
www.fast.org.uk

Becta (report on Microsoft Academic Licensing)
tinyurl.com/yuzngl

Becta (FITS)
becta.org.uk/fits

Open Solution Alliance (for information about open-source software)
www.opensolutionsalliance.org

GNU (general public license)
tinyurl.com/38jpd

OCS Inventory (open-source asset management)
www.ocsinventory-ng.org

Spiceworks (free asset management)
www.spiceworks.com



The best way to take the petty hassles out of your network-manager's day is to get network-management software. Chris Byers explains

The government has invested tens of thousands of pounds to kit out your school with the very latest IT equipment over recent years. You have classroom upon classroom of networked PCs and Macs delivering the curriculum to eager young minds. But even with all this technology, you find yourself running around the school every day. Why?

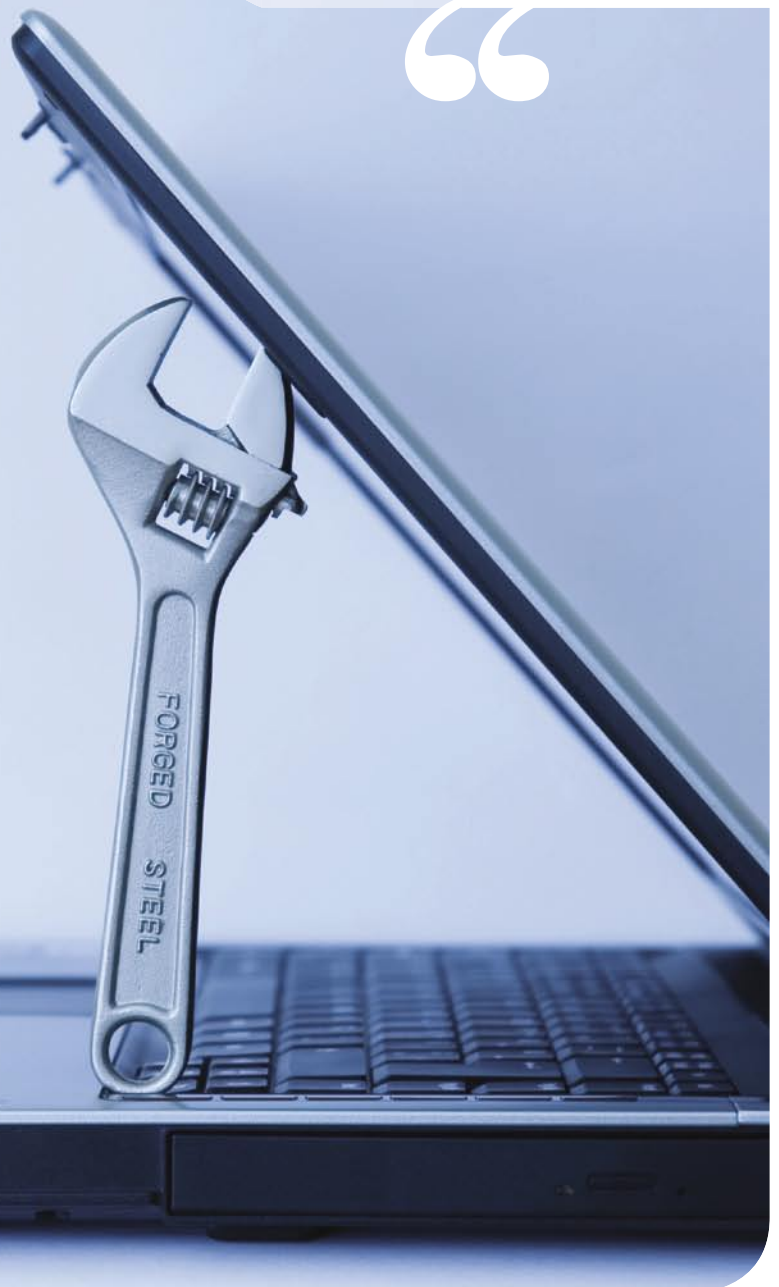
Most network managers working in education spend a disproportionate amount of time fixing tiny problems after getting stopped in corridors by staff desperate for help. You also have to contend with post-it notes plastered around the periphery of your monitor, and that's when you're not getting sidetracked by vague emails about so-called 'disasters' that can be solved in seconds.

You need something to manage your network, monitor it for problems and automate solutions. You need network-management tools and you need them now.

Network-management tools generally fall into several categories. There are tools to automate things; those that allow you to perform tasks remotely; those that hold records and data relevant to your network and equipment; and tools that monitor your network and alert you to problems before they become a serious issue.

Lots of products perform these essential tasks; some free and some paid for. We cannot cover them all, but let's get you started with automation. >>

NETWORK management tools





The management: Keeping track of every piece of IT equipment can be time-consuming. Fortunately, plenty of software is available to help you

Automating tasks

Sick of applying updates manually? Tired of re-installing Windows for the umpteenth time? What you really need is for your systems to do this for you, automatically and with as little fuss as possible.

If you have Windows servers (Server 2000 and 2003), a number of tools can save you time and effort. All of these tools are available either as free downloads or are included with the software itself.

Windows Service Update Services (WSUS) installs on to your Windows 2003 Server and automatically downloads updates for Windows 2000 and XP, Office XP, 2003 and 2007, as well as several other Microsoft products. All this occurs to a schedule you set.

The WSUS server downloads the updates you select, then you simply set your Windows workstations to update either via group policy or locally on each Windows PC. This saves on bandwidth and saves you manually installing updates on each machine. This process also allows you to disallow updates you don't wish to apply

You can also specify whether clients apply the updates at a specific time, automatically re-boot or simply wait for you to apply them manually. This is a major time saver for any network administrator.

Remote installation services

Remote Installation Services (RIS) has been around since Windows Server 2000, but its latest incarnation - Windows Deployment Services (RIS-WDS) - allows Windows Vista to be deployed. RIS-WDS is an imaging system which allows you to install Windows on

AN AUTOMATED HELPDESK WILL BECOME THE FOCAL POINT FOR YOUR SUPPORT DEPARTMENT

computers attached to your network without having to use CDs. If you use it correctly it will even go so far as automatically naming your computers, joining them to your domain, installing printers and setting your internet homepage. RIS-WDS is free and can be installed via the add-remove programs applet in your control panel. Select Add\ Remove Programs, then click Add/Remove Windows Components in the lefthand panel.

Please note that WDS superseded RIS in Windows Server 2003 Service Pack 3. For more fully featured commercial products you may wish to consider products such as Norton Ghost and Acronis True Image.

Helpdesks

Many people wouldn't consider helpdesks as 'automation', but they save time and effort by collating problems automatically. When correctly installed and configured, an automated helpdesk becomes the focal point for your support department, especially in schools where there may be only one person to provide all the help. No more irate phone calls, no more vague emails and, more importantly, end users can use its interface to track problems rather than having to phone you or stop you in a corridor.

Many helpdesk solutions are available - some great free ones and some more feature-rich commercial products. We won't go into details of products, but we will list the essential

features that make them easy to use for support staff and users. Ideally, an automated help desk should be:

WEB-BASED: Hosted either on an external web server or on your intranet, it must be available everywhere you need it to be. If you can't see it, it can't be used.

EASY TO USE: A helpdesk which is overcomplicated or requires too much training for staff will not get used.

EMAIL FOCUSED: A good helpdesk should keep users informed about their problems. Any steps taken to solve the problem will be emailed to them automatically via the helpdesk system.

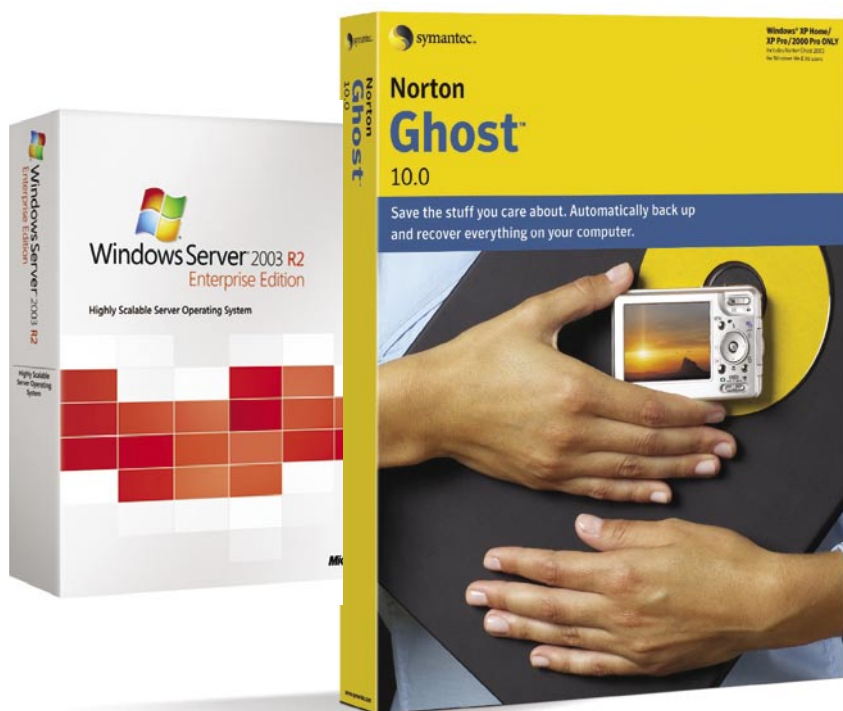
CONTAIN A KNOWLEDGEBASE: Some helpdesks include a knowledgebase. This holds the information of previous problems and their solutions to save having to reinvestigate the solution should the problem arise again.

These can be made viewable to the helpdesk users, and could allow them to fix their own problems.

• For more guidance on how to implement a helpdesk within a school please visit the following address on the Becta website: tinyurl.com/2b2xgq

Maintaining records

One major problem faced by IT support staff is how to keep track of assets. If you have 400 PCs you also have 400 monitors. >>



Windows server has tools to save you time, Norton Ghost is a full-featured commercial product

That's 800 pieces of equipment, all with serial numbers that need to be logged, asset tags to be applied, and locations to be recorded. Add in servers, laptops, projectors, whiteboards, network equipment and so on, and already you're looking at almost 2,000 pieces of IT equipment in an average school.

What you need to do is host a central record of the equipment on a shared system which can be amended easily.

There are quite a few ways to do this. Some are web-based, others are installed to a server and use a database, and still more have nice little features such as the ability to record equipment on loan. The best tools automatically get the information and record it for you, saving you time and effort.

A couple of examples of these tools are:

COMMERCIAL:

Net Support DNA -
www.netsupportsoftware.com

FREE:

MST Software Hardware Management System - www.mst-software.co.uk
Lansweeper - www.lansweeper.com
OCS Inventory - www.ocsinventory-ng.org

Early warning systems

Perhaps one of the best tricks any systems administrator or technician can pull is to give the impression of being psychic - to appear at a user's computer to fix a problem before they even knew they had one. To ensure you're always one step ahead of the game you need to get your network to talk back to you.

From switches to IP cameras, from creaking old Windows PCs to brand-new servers, most devices are capable of letting you know when there's a problem. Most of this is tied up with the Simple Network Management Protocol (SNMP) - a simple-to-use service supported by most hardware.

SNMP gathers information and sends it to whichever computer you've specified in the device SNMP settings. Often all you have to do is fill in a network address for the computer you want to receive the information and tick the boxes to specify the information you want sent.

SNMP on a Windows computer provides even more information. It can inform you how much free space is available on the hard drive, right up to how hard the processor is working. And best of all, SNMP is free.

To get the most from SNMP you should ideally have a server running all day, every day with the monitoring software installed. This software receives all of the SNMP traffic and, once configured correctly, can even email you if any one of a number of problems occur, such as computers running too hot or running out of disk space.

Listed below are some examples of great commercial and free network managers.

COMMERCIAL:

Ipswitch WhatsUp Gold -
www.whatsupgold.co.uk

FREE:

Nagios - www.nagios.org
- for advanced users only
The Dude - tinyurl.com/mulky
- very easy to install and run ☑

Remote control

It's impractical to spend all day walking between classrooms fixing problems that take seconds to remedy. You need to be able to connect to any computer and take control of it from your workstation.

Again, many free and commercial programs are available for this function, so we will try to list some features you may want to consider. As ever, free versions are often lacking in the higher-end abilities of their commercial rivals. With any good remote control software you should be able to:

- See what the user sees on their screen
- Take control of the computer from a remote location
- Execute commands remotely
- Lock the keyboard and mouse
- Transfer files to and from the client PC
- Reboot or power off computers using Wake-on-LAN (WOL)
- Share a user's desktop with other machines (so everyone sees the same thing - an excellent teaching aid).
- Chat with the user either via headphones or a text box
- Browse the file system of the remote computer
- Be able to view many computers on one admin screen in a tiled view
- Prevent access to the internet or specified websites. Some versions even allow you restrict clients to only the websites you allow

For more information try looking at the following commercial products and their free counterparts.

COMMERCIAL:

NetSupport Manager -
www.netsupportsoftware.com
Ranger Remote Control -
www.rangersuite.com
NetOp - www.netop.com
LanSchool - www.lanschool.com

FREE:

LanView 3 - www.mst-software.co.uk
iTalc - italc.sourceforge.net
Tight VNC - www.tightvnc.com

Chris Byers is an educational IT systems manager and the founder of EduGeek.net, the leading peer support community for educational IT staff



Many schools ban iPods, mobile phones and other digital devices. But Jonny Evans thinks they could be the key to education outside the classroom

Education's future may be unwritten, but it's being imagined. Mobile technologies and the implementation of Managed Learning Environments (MLEs) are part of the move to personalised learning and education outside the classroom.

This isn't blue skies thinking. For example, the iPod's popularity has led to its use in schools and universities worldwide. University of Reading banking students use them, as do pupils at Shirelands School, and successful iPod pilot schemes in Edinburgh have generated plans to test other mobile devices as learning tools too.

Nigel Douglas, the commercial project manager of Edinburgh's eTeam, observes: "This is inevitable, it's going to happen. What we want to do in Scotland is get there as fast as we can. It's clear that it greatly motivates and inspires children."

His project is currently testing numerous devices for education, including Nokia phones and PlayStation Portables (PSPs). "We believe handheld technology is going to be able to deliver a curriculum of excellence: better taught, more willing to learn, better engaged students."

The Etech MLE, Studywiz, is used in 20 countries across the world, including the world's largest one-to-one computer deployment, the US State of Maine.

The results of a four-month research project conducted by the Victoria state Department of Education at Heathmont College in Melbourne found that using iPods and Studywiz as mobile learning tools in conjunction with video podcasting encouraged better student performance, behaviour and attainment. It also led to better communication between student and teacher.

Etech CEO Geoff Elwood observes: "We find students getting 20 to 30 percent better grades if they have access to iPods than if they don't, even with the same basic Studywiz system available."

The potential for connected devices, such as the iPhone or iPod touch, is greater. "It's two-way, students can take tests or engage in dialogue," Elwood says. And it's not just about iPods, the company is developing interfaces for many products. "We've committed to support all devices," he said.

But many schools are attempting to ban mobiles and digital devices. "The internet has changed everything and certainly



The mobile LEARNING REVOLUTION

revolutionised education. Schools now are trying to engage with children who have differently wired brains, such technologies should be used as solutions, rather than being banned," Elwood stressed.

The challenge

Grasping the digital nettle is challenging, but with the UK government stumping up £40m for the creation of such platforms, there's no evading the need to act. Government targets demand schools introduce integrated-learning and -management systems by 2010.

Influential non-profit education thinktank, Futurelab's *Education 2020* report postulates an array of opportunities based on

ubiquitous mobile devices - iPods or mobile phones - and MLEs.

Futurelab learning researcher Dan Sutch said: "There's a difference between 'mobile learning' and 'learning with mobile technology'. The latter is about using mobile technologies so learners can employ a personal device that's portable, possibly personally owned and usable in a wide variety of places. Mobile learning puts the emphasis on the learner, recognising them as mobile; moving across contexts; in and out of different groups but digitally connected."

Educators must get involved in this evolution if they are to shape its future - rather than having it shaped for them.

"We need to get teachers to think beyond the boundaries of the classroom. Teachers >>



Education on the move: Mobile tools allow children to study away from the classroom. But educators need to work out how to enable all pupils, without exacerbating the 'digital divide' and leaving behind those children who don't have access to the latest technology

will love to do this if they know they can engage with children outside class," affirmed Etech's Mike Damiano.

Futurelab's report agrees: "It's crucial we engage with developments in digital technologies at the earliest stages. We need to understand what may be emerging, explore the implications for education and understand how best we might harness change."

It's not the device that defines the learning experience, but the resources it supports. "It's not until you put in a learning platform that provides the glue to all these devices that they begin to work together," Damiano observes.

Michael Murdock is the Building Schools for the Future (BSF) solutions director for MLE provider, Northgate. "It's about using mobile technologies so they can access educational content. We can't expect everyone to have a computer at home."

TEACHERS NEED TO THINK BEYOND THE BOUNDARIES OF THE CLASSROOM

Like Studywiz, Northgate's MLE offers content available to multiple systems, including mobile devices. Murdock predicts collaborative learning "where a learner's input is as important as the content they retrieve".

"Mobile technology makes that contribution faster, quicker and outside the classroom. It appeals to different learning styles, so rather than be forced to learn at certain periods, learners gain flexibility in terms of the learning environment," he said.

"I think it's appealing to today's youth to be able to access information in different ways using devices they are used to."

Training and best practice experiments are essential, notes Murdock. "The challenge is how to navigate these things. These solutions must be introduced slowly in a proper change-management process."

Recent years saw funding provided for the purchase of interactive whiteboards, but little attention paid to training. Implementing change demands change management.

"We adopted a small group approach in which teachers who work well with ICT looked at the resources and how they could be used,"

explains head teacher of Birmingham's St John Wall School, John Hussey.

Edinburgh's Douglas talks of the 'St Thomas effect', in which few whiteboards were installed because most teachers didn't want them. Once they'd been seen in use, every teacher demanded one within two months.

Apple is now the second biggest single supplier to the UK education market. Simple interfaces, attractive products and the 'iPod halo' effect have combined with effective solutions such as iMovie and the Mac OS's multimedia strengths to drive Apple's growth.

Apple's EMEA director of education markets, Herve Marchet, explains that children using technologies they are already immersed within, such as video, have been shown to get better grades and to demonstrate improved communication, commitment and collaboration.

Herve Marchet's not simply proselytizing

his platform: "If you want to play in the education market, you need to be a solutions provider.

You aren't just bringing

the machine, you must offer appropriate software, content and best-practice models."

Apple's network of regional training centres, for example, focuses on showing teachers what they can do with technology so they can apply these lessons in class, regardless of the platform they use.

Herve Marchet believes there's a strong educational opportunity inherent in mobile devices. "Easier access, learning anywhere at any time, that Intel mantra now begins making sense.

"There's more collaboration, you don't have to go to one place to get information, you can carry projects with you to show others what you've been doing," he explains.

Military precision

Like the internet, another technology originally developed for military use seems set to hit the UK education sector - pattern matching. Traditionally used for tracking down and identifying terrorist threats, in education pattern matching analyses a student's work while they work, establishes

what the topic and subject area is and 'pushes' highly appropriate resources at that student. This technology is coming to the UK market from a company called Autology.

Autology has linked up with textbook publishers to make the books' information available in this way, sending pupils not just the book, but the specific relevant pages. Autology also allows teachers to approve appropriate web pages and make school-generated information available through the system, which also copes with multimedia assets.

Autology CEO David Black explains: "As students write, what they write acts as an implicit query. The information is pushed to the student and conceptually matches what they're writing about."

Black notes the drive toward personalised learning but warns it could abandon poorer children to poor resources. "For such learning to work and not to replicate social and economic inequalities, every student needs to be equally resourced," he explains.

Autology means students can get such equality. Black confirmed support for mobile devices and systems is on his company's roadmap. Leading US technology and education guru, Alan November, calls this, "the most exciting thing he's seen since the development of the PC", Black said.

Head teacher Hussey uses Autology in his school: "I've seen youngsters focus on the whole lesson and it has boosted the quality of outcomes. We know it will boost results."

Hussey's school is in a tough part of Birmingham, with its own set of challenges: "We have a 1960s school building that's part of the BSF. I have 46 languages, half my kids have free school meals in an area of 90 percent deprivation. If I want these youngsters to have a part to play in the world in five years' time we must explore the broadest possible implementation of technology to promote their learning."

Apple's Marchet agrees: "The digital divide is an issue. We want to ensure that everyone can have access to technology."

The question for policy makers is how to marry mobile technologies with conventional teaching to create a bridge across that divide for tomorrow's world. ☒



IT support

IN SCHOOLS

There's no such thing as a 'typical' IT support team in education. But Tony Sheppard says all network managers face similar challenges

No matter how many IT support staff you have, they'll always have more work than they can handle. It doesn't matter whether you're on your own or you have a team of 20, looking after an IT network is a time-consuming job. But you knew that anyway.

There's no such thing as a standard school IT setup, just as there's no such thing as a normal day. However, there are common tasks all network managers must take on.

Think about the jobs we are asked to do on a daily basis - changing passwords, changing toner, setting up and rolling out computers and laptops, buying equipment, fixing faults, keeping the network up to speed... The list goes on.

You might think that the more computers your school has, the more IT staff there would be. That's often not the case. In fact, it's difficult to establish a recommended ratio of technicians to computers, and it's nigh on impossible to pin down the government on such a figure. We reckon that one technician for every 100 computers is reasonable.

In reality, few schools are so fortunate.

Establishing roles

But regardless of numbers you need to make sure IT staff have the skills required to keep the school network running smoothly.

Let's start at the bottom of the chain; what might disparagingly be called 'the mouse cleaner'. This is your basic technician who plugs in mice and keyboards, changes toner and keeps things ticking along.

Then we have the experienced technician. The person who installs software, gets PCs rolled out and does more advanced fault finding and resolution. Then we get the senior technician or assistant network >>





AS PART OF YOUR PLANNING YOU SHOULD ALWAYS MAKE SURE THAT YOU'RE NOT FACTORING IN A WILLINGNESS TO WORK SILLY HOURS ”

manager. This is the person who works on the backend of IT support: server administration, higher-level networking concepts and deployment techniques.

We shouldn't forget the Network Manager. They may go under a variety of titles, but this is the person who not only knows their stuff, but understands how it all fits in the grand scheme of things. Typical tasks include backup management, storage management, service level agreements (SLAs), change management, tendering and procurement and awareness of national strategies.

Your school needn't have one member of staff to cover each of these areas, but they do all need to be covered. One college we know of has six IT staff: a network manager, two assistant network managers, a technician, a placement student and a website manager. Each takes a lead on one or more key areas, but all members of the team can fill in when required. The network manager controls the budget, network hardware and the servers. One assistant leads on desktops and software while the other takes laptops and wireless. The technician leads on all audiovisual matters and the placement student deals with user management. Each team member might do tasks that fall under the lead of another, but one person has responsibility for each.

Smaller teams may have to look outside the school for support - that could mean support contracts or managed services covering anything from simple hardware repairs to desktop and server installation.

Below we've answered some of the most frequently asked questions about support setup. For further information, the Becta website (www.becta.org.uk/techcomp) provides excellent advice on anything from how to recruit technicians to how to improve your skills and the skills of your staff.

IT support FAQ

What happens if my school wants to add another 100 computers?

You may think any upgrade to a school's IT capabilities means you'll get another member of staff. We wish it did. What it may mean is that you should at least be able to

invest the time to ensure that the computers are rolled out and managed in as efficient a manner as possible. This may mean looking at a variety of deployment techniques but may also involve using middleware to free up more of your time or the time of your team.

How can I expand my team?

This is something we're often asked. One solution is to stop performing miracles. Many support teams will bend over backwards to ensure everything runs smoothly at the expense of their own time. We're not saying this is wrong or right, but as part of your planning you should always make sure that you're not factoring in a willingness to work silly hours. If the capacity is not there in your team then do not take on too much. This not only applies to manpower but also to skills. If the skills are not in your team you have to plan how you will obtain them.

What if I can't get any more staff?

Make do with what you have and become more efficient. Get more work done for less effort. This may mean that you don't do the work but you get others to do it for you. Staff who are confident in ICT will be happy to reboot their computer before giving you a call as they know you'll tell them to do that anyway.

What's an unreasonable number of staff?

Anything over one technician per 100 computers will be challenged in a school, but one to 60 is still achievable in some places. It depends on the type of equipment used in the school; some claim that Macs require less work to maintain once set up, but others believe it takes much longer to set them up. Others will opt for server-based solutions such as Citrix or Sun Ray terminals with terminal servers to save time and resources.

If you are looking for examples of the way other schools cover IT then a tour around www.edugeek.net will show a wide variety, some with tales of success - others with stories of frustration. To get a good idea about the services and processes that are needed to ensure support works for your school then have a look at www.becta.org.uk/fits. 

Tony Sheppard is one of the site admins for EduGeek.net, the leading online community for IT professionals in education. He has worked as a technician, a network manager and is now a director of IT. Tony is presently working on the implementation of Learning Platforms in Northamptonshire as part of the ICT in Education Team.



IT'S LEGAL CHALLENGE

Keeping on top of legislation that governs the way we use IT in schools can be a major headache. Russell Dyas has the answers

IT can be a legal minefield made up of confusing acronyms such as WEEE and DPA. But every IT professional working in the education sector is expected to rise to the challenge. A mass of legislation governs the way we perform our jobs, but often the guidelines appear at odds with the goal of delivering effective technology solutions to teachers and staff.

So how do we start to unravel this complicated affair? Over the following two pages, we'll look at some of the legal requirements placed on educational organisations' IT activities, and provide real-world advice to help make sure your school follows strict guidelines for protecting staff and students.

The Data Protection Act (DPA)

The DPA can be a daunting subject, but it boils down to a few simple rules which, if adhered to, will help your school stay on track. And on the next page - *DPA, the basics* - we've picked out the nuts and bolts of the regulation as it stands.

Preventing inappropriate access to confidential data must be uppermost in the minds of every member of staff. At its most

basic level, this means ensuring laptops and desktops are password-protected and either locked or logged out when a staff member isn't using them for extended periods.

When a staff member downloads student data from the Managed Learning Environment (MLE), are they aware of the need to keep the information secure if they also access it at home? Failing to do so could put you in breach of the Act. As well as following these rules ourselves, we must educate all staff about good practices for securing data. All staff need to ask themselves "what data would a thief get if my laptop was stolen?"

Most Virtual Learning Environment (VLE) and MLE providers transfer data from your system into their product. Do you have permission to share your student data with these providers? Data transfer agreements that schools send to parents mention the local authority and agencies such as Connexions. But when it comes to transferring the data to a commercial company, the agreement might not stand. Either your existing agreement needs an edit, or an extra one needs to be created.

Also under DPA and privacy laws, you are required to send and receive data in a secure >>

Russell Dyas is an IT Professional, Education Technologist, blogger & public commentator on ICT Support in education. He's a manager at EduGeek.net the leading website for ICT support staff in education



The WEEE directive means that it is no longer acceptable to simply dump elderly IT equipment

way. For example, email can be insecure, so you cannot send student data over the web. If you work for a state school, check with the local authority (LA). They often have secure file transfer systems between schools in the same LA. It may be that your local authority has a system to pass data on to other LAs.

Software licensing and asset management

As discussed on page 15, licensing is another area that has great implications, not only for senior leadership teams, but also for IT managers. You need to make sure you record all the details of the licences for every software item you have. While not required, the best practice is that all information on software licences is stored in your internal asset-management system.

You will need to remind staff that if they install software on a work laptop, they have to make sure it is legal. Also, remember

You will first need to work out which products are covered by the WEEE directive. Most electrical equipment is affected, except for 'large-scale industry tools' or 'fixed installations'. As this not only includes IT kit but all electrical equipment as well, you need to have combined process for all hardware when it reaches end of life.

Once you have worked out what equipment requires disposal, see if its supplier runs a waste collection. If not, you'll need to find a company to dispose of it for you. Visit the Waste Aware Business website (wasteawarebusiness.org.uk) and you can search a database of local companies and find one that's nearby.

These issues have big legal implications, so you need to make sure the whole school follows the rules. Put the guidelines into your school policies.

For example, your equipment-management policy should include a section on the management and disposal of WEEE, while your IT security policy should cover the DPA.

THESE ISSUES HAVE BIG LEGAL IMPLICATIONS SO YOU NEED TO MAKE SURE THE WHOLE SCHOOL FOLLOWS THE RULES



Where can you get help?

to keep your asset management solution current - this saves you time at the yearly financial audit. This is even more important now due to the Waste Electrical and Electronic Equipment (WEEE) directive. You now need to be able to prove your disposal history, or the school could be liable for costs and fines if items are disposed of in an incorrect manner.

The WEEE directive

The WEEE recycling directive has added a large amount of work for schools. You can no longer simply dispose of old computers into a landfill. One of biggest issues of WEEE is working out what needs to be done with items you wish to dispose of, and there are various procedures you need to follow.

Given the complexities of the legal issues surrounding the education IT market, it's essential you get as much advice as possible from various sources. If your school is part of the LA, ring its legal department, which will have lawyers on hand who can help you with your specific questions.

It may also help to contact any suppliers you have a relationship with, as most major suppliers are willing to help. Research Machines' website, for example, has lots of useful advice on how to tackle the WEEE directive (www.rm.com/weee). Another good site for information about WEEE is the Net Regs website (tinyurl.com/y8e7pt).

Finally, get in touch with the Information Commissioner's Office which provides some excellent advice on the implications of DPA (tinyurl.com/ynsyo8). ☒

DPA, the basics *

Data may be used only for the specific purposes for which it was collected

Data must not be disclosed to other parties without the consent of the individual to whom it refers, unless there is legislation or other overriding legitimate reason to share the information (for example, the prevention or detection of crime). It is an offence for other parties to obtain this personal data without authorisation.

Individuals have a right of access to information held about them, subject to certain exceptions (for example, information held for the prevention or detection of crime).

Personal information may be kept for no longer than is necessary.

Personal information may not be transmitted outside the EEA unless the individual whom it is about has consented or adequate protection is in place, for example by the use of a prescribed form of contract to govern the transmission of the data.

Subject to some exceptions for organisations that do only very simple processing, and for domestic use, all entities that process personal information must register with the Information Commissioner.

Entities holding personal information are required to have adequate security measures in place. Those include technical measures (such as firewalls) and organisational measures (such as staff training).

**Source: Information Commissioner's Office - ICO*

Keeping remote data secure

MAKE SURE LAPTOPS ARE PASSWORD PROTECTED

If using a shared computer, like a home computer used by family, keep all confidential data on a memory stick and not stored on the computer.

Memory sticks often have encryption software with them. Enable it so only you can access the data And if you keep data on your work laptop, retain only information you need.