+ D&T - CODING - INCLUSION - SOCIAL MEDIA +

2025/26

www.teachwire.net

TECHNOLOGY + INNOVATION

New solutions for outstanding teaching and learning

FACT OR FICTION?

Equip your students to spot online lies

TRIED & TESTED

Deliver perfect science practicals

Become a data protection pro

'Morning, Mr HAL'

Could an AI really teach your lesson?

LOCK & KEY

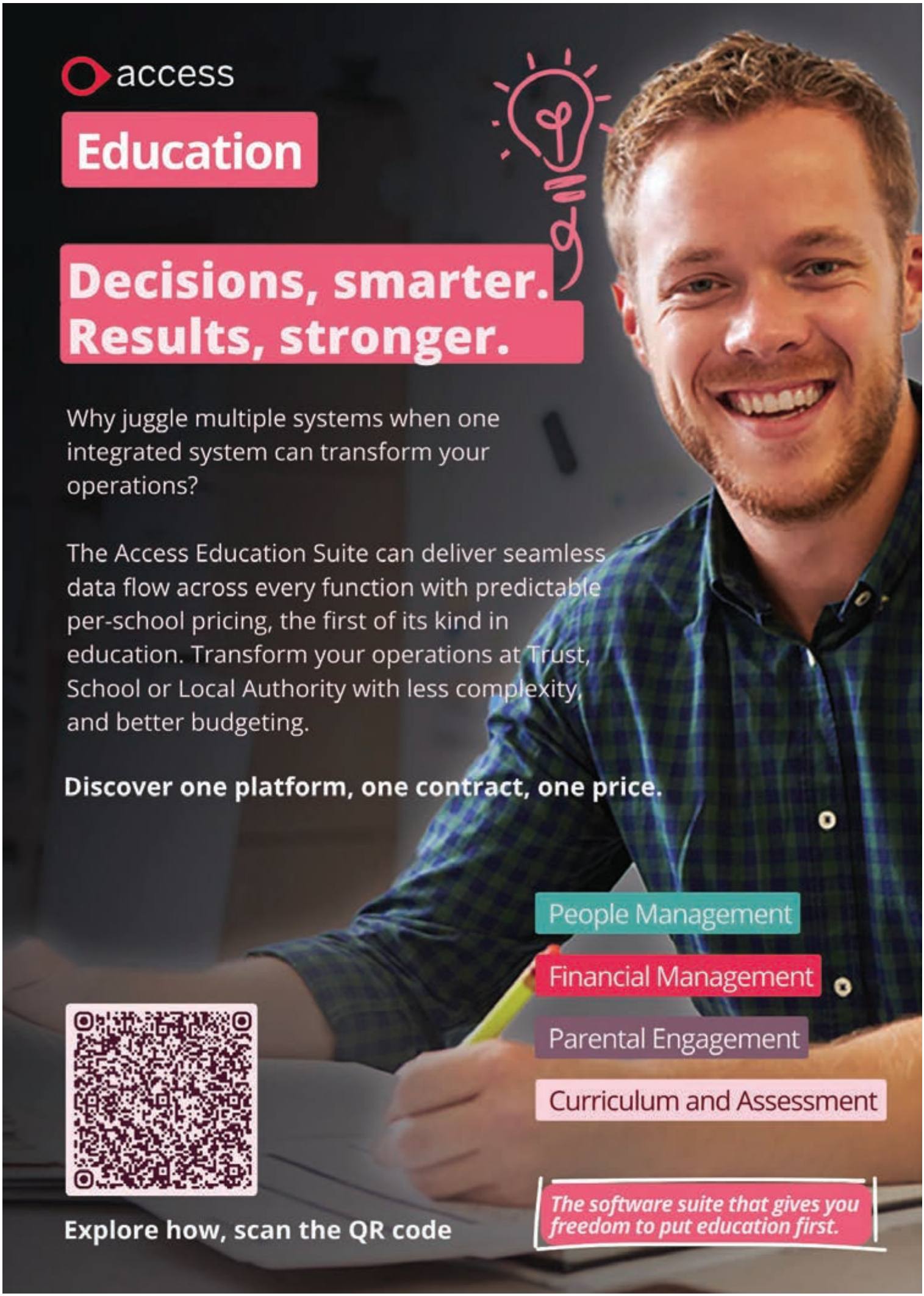
CYBERSECURITY MUSTS FOR EVERY SLT

Just the job

Sort your edtech needs for the right price

WATCH & LEARN

How the right tech can boost your CPD


access
Education
Decisions, smarter.
Results, stronger.
Why juggle multiple systems when one integrated system can transform your operations?
The Access Education Suite can deliver seamless data flow across every function with predictable per-school pricing, the first of its kind in education. Transform your operations at Trust, School or Local Authority with less complexity, and better budgeting.
Discover one platform, one contract, one price.
People Management
Financial Management
Parental Engagement
Curriculum and Assessment
Explore how, scan the QR code
The software suite that gives you freedom to put education first.

Welcome...

When putting together this edition of *Technology & Innovation*, throughout the research process, conversations with contributors and general taking of the profession's temperature, one area of edtech development seemed to dwarf all the others in terms of attention and mindshare. Inevitably, it was AI.

Over the past couple of years, we've progressed rapidly beyond those initial tinkerings with a new app or website that tends to be most people's first encounter with a major new technology these days. We're long past the '*Hang on, there might be some issues and problems with this thing*' phase. The flurries of headlines announcing how the big tech players will be capitalising on this exciting new field of development are old news. Microsoft's Copilot, Apple Intelligence, Meta AI and Google's Gemini already feel like well-worn parts of the modern online ecosystem.

We've seen this process play out before – first with social media, and then with smartphones and tablets. The broader tech industry is keen for AI to be seen as on a par with those developments in terms of its societal impact (rather than be compared to, say, 3DTV, cryptocurrencies, VR, AR and NFTs). Considerable resources have been staked by some of the most well-resourced organisations in human history on making AI a successful and transformative technology.

As educators, you'll have seen some of the AI-powered assessment solutions, lesson-authoring tools and anti-plagiarism measures for yourself by now. You might even be making daily use of them, and we may yet see even more impressive implementations of the technology sooner rather than later.

Which is why, if you haven't already, you need to devise an AI policy that all staff can get on board with (see page 26), and be clear in your own mind, and among your colleagues, as to what the place of AI should be at your school, and what it should and shouldn't be used for (see page 30).

Given the speed with which technology now advances, and the almost unseemly haste with which it can now be incorporated into established workflows, we need to have our eyes open and be fully cognisant of the changes taking place. AI use in education settings certainly has its limitations (see page 14), but also the potential for driving home to us the most important aspects of education itself – and even what it means to be human (see page 18).

It all sounds like heady stuff, but then we live in heady times. Your students will experience futures the rest of us can scarcely imagine. But you can still give them valuable maps, drawn with wisdom and compassion, for when they get there.

Enjoy the issue,

Callum Fauser, editor
callum.fauser@theteachco.com

Visit TEACHWIRE.NET/EDTECH for more information and great ideas

ON BOARD THIS ISSUE

Anthony David is an executive headteacher and author

Kirsty Treherne is a former headteacher and education lead at iAM Compliant

Elliot Lewis is chief information security officer at ParentPay Group

Laura Knight is founder and CEO of education consultancy Sapio

James Saunders is the headteacher at Honywood School, Coggeshall, Essex

Helen Wickens is Programme Manager (Careers) at the Science Museum

Contents

2025/2026 EDITION

artichoke

Publishers:
Joe Carter, Sam Reubin, Richard Stebbing

Editor:
Callum Fauser, callum.fauser@artichokehq.com, 01206 505115

Group Advertising Manager:
Samantha Law, samantha.law@artichokehq.com, 01206 505499

Advertising Manager:
Hayley Rackham, hayley.rackham@artichokehq.com 01206 505928

Deputy Advertising Managers:
Hannah Jones, hannah.jones@artichokehq.com, 01206 505924

Matt Gilley, matt.gilley@artichokehq.com, 01206 505992

Art editors:
Sarah Barajas, Richard Allen

Customer services:
secondary@artichokehq.com

Accounts:
artichokemedialtd@integral2.com

Published by:
Artichoke Media, Suites 2 & 4, Global House, Global Park, Eastgates, CO1 2TJ

CLASSROOM

6 DON'T BELIEVE THE HYPE
Professor Victoria Baines shares her thoughts on the vital role that teaching critical thinking skills can play in helping students confront online misinformation

10 OBSERVATIONS REIMAGINED
Matt Newell considers the implications of combining AI with lesson observations, and whether that might spell the end of intrusive classroom visits...

14 TECH, TEACHING AND TRUST
Teachers won't be replaced with artificial intelligence any time soon, says Colin Foster – and here's why

17 MAKE DIGITAL LEARNING MATTER
Linking digital projects to real-world issues can inspire students, while helping develop transferable technical skills, says Natalie Moore

18 THE APPLIANCE OF SCIENCE
As any science teacher knows, practical lessons are often challenging, but hugely rewarding – Kit Betts-Masters offers some advice on ensuring yours go without a hitch...

20 A NEW ITERATION
Tony Ryan reflects on how D&T has evolved as a subject in terms of what it used to be, and what it now has to be

24 CRACKING THE CODE
Roweena Warnakulasuriya explains how coding lessons at Wilmington Academy will see students getting hands-on with some familiar use cases...

WHOLE SCHOOL

26 WHY WAIT?
Drafting an AI policy might seem daunting - but if you put it off, it's your staff and students who will miss out, says James Saunders...

29 MAKING THE WORLD GO ROUND
Helen Wickens details how the Science Museum is giving technical careers some long-overdue time in the spotlight

30 BRINGING AI TO HEEL
The benefits of AI for teachers will only be fully realised once schools have put appropriate regulations and safeguards in place, says Kirsty Treherne

32 BEYOND THE FROZEN SCREEN
Time for an upgrade? We look at how a new report details the real impact of outdated school tech...

35 SORT YOUR CYBERSECURITY
LGfL's Gareth Jelley discusses the elements that ought to form the foundations of every school's cybersecurity policy

38 FROM 6 TO 36
We hear how one SEND school is growing rapidly in size and provision, with the help of some smart inclusive edtech...

ADMINISTRATION

46 BUYER BEWARE
Rich Newsome highlights the hidden risks of public sector frameworks in education procurement

48 SAFE TRAVELS
Mac Bowley looks at what teachers can do to help young people safely navigate online spaces in a post-AI world

52 DATA WITHOUT THE DRAMA
Elliot Lewis presents an IT leader's guide to achieving GDPR mastery

56 ALL SYSTEMS SECURE?
Mat Pullen explains why schools can't afford a failing grade when it comes to their standards of data protection...

AT HOME

60 HUMANS IN A DIGITAL WORLD
Anthony David examines how the increasing adoption of AI should prompt us to reclaim the skills that make us whole

63 EDUCATING THE CHILD
We need to move past the myth of the 'digital native' and recognise the online knowledge and skills young people now can't do without, says Laura Knight...

66 A SILENT ADDICTION
Why we owe it to our students to confront the purposefully addictive nature of social media and its frequently malign impacts

CLASSROOM

How the latest tech developments are shaping students' experiences of teaching and learning

THE AGENDA:

6 THINK CRITICALLY
The lessons your students will need if they're to become smarter and savvier consumers of online content

10 WATCH AND LEARN
Lesson observations need an overhaul – so could AI be the key to making them better?

14 THE HUMAN TOUCH
Why AI teachers won't be taking the register for a good while yet

17 FROM ABSTRACTION TO REALITY
Help your students become tech creators, rather than consumers by linking coding to real-life challenges

18 MIND THE BUNSEN BURNERS!
Kit Betts-Masters presents his thoughts on what's needed for a perfect practical science lesson

20 WHERE TO NEXT?
Tony Ryan weighs up the mixed recent fortunes and promising future of D&T as a subject

24 LINE BY LINE
Roweena Warnakulasuriya discusses her approach to teaching tomorrow's developers

Don't believe THE HYPE

Professor Victoria Baines shares her thoughts on the vital role that teaching critical thinking skills can play in helping students confront online misinformation

Professor Victoria Baines is a cybersecurity specialist, having begun her career as an intelligence analyst for Surrey Police before going on to work at the Serious Organised Crime Agency (now the NCA) and the European Police Agency.

She has also worked for Facebook as its Trust & Safety Manager for EMEA, and is currently Gresham IT Livery Company Professor of Information Technology at Gresham College.

What should be the starting point for teachers when educating students about online harms?

More than most, I've seen how people can fall for scams, and be persuaded and manipulated. I read classics at university, which may seem quite 'elitist' – but it taught me *how to deconstruct other people's arguments*.

The Romans and Greeks helped define what we now call rhetoric – the power of persuasion. We see it everywhere in the modern world – in advertising, but also in cybercrime and fake news, where rhetoric is deployed as a form of social engineering. These efforts may be carried out by hostile governments that want to affect election outcomes, for instance, or certain groups and individuals that want to change how we think.

Effective rhetoric appeals to our sense of logic, our emotions, our personal ethics, or all three at once. It governs how manifestos are laid out. It's at the heart of every political speech you've ever heard. It's no coincidence that some of our most high profile politicians have been classicists trained in precisely that kind of rhetorical expertise.

Is it now easier or harder to protect young people from online harms compared to previous decades?

In over 20 years of working in online safety, one thing I've seen that's quite heartening is how extraordinarily resilient kids can be – but we do have to let them actually develop that resilience in the first place.

In recent discussions around online policy, and legal developments like the Online Safety Act, there's been a drive towards removing all forms of harmful online content from children as much as possible, since their brains are still developing – and that's absolutely right and proper.

However, that shouldn't go as far as removing *all* forms of risky experiences from children. When teaching a child how to ride a bike, for example, you wouldn't demand that they never ride on the road because doing so 'wouldn't be safe'. If children never encounter situations where they must exercise their own judgement, weigh up risk or navigate potential conflicts, we could end up with a generation of 'unsavvy' adults who are ill-equipped to ever do so.

One major change we've seen in recent years is the growing importance of influencers. When I was a teenager, the main trusted sources of information were newspapers and TV news bulletins. People are now increasingly getting news that's mediated through a variety of influencers and personalities – some of whom may know what they're talking about, and some of whom may not.

> **"We need people who can critically evaluate what they're being shown"**

Something else that's changed is how content is now routinely consumed. Short-form media can be great – at its best, it's highly engaging – but what it can't do is give viewers a nuanced or balanced appreciation of a given issue. 15- to 17-year-olds are perfectly capable of reaching an in-depth understanding of topics like the conflict in Gaza – but they won't necessarily get it from short-form content.

Is it possible to maintain spaces with perhaps a mild degree of risk that children can learn from, without putting them directly in harm's way – like the online equivalent to a children's playground, say, or the sports pitch?

Facebook's terms of service have always set its minimum user age as 13, and the same goes for all other US-run companies under the terms of the COPPA legislation (Child Online Protection and Privacy Act) passed by the United States Congress.

However, since GDPR came into force across the EU – and in the UK, since we were prior signatories – countries have been able to set those age limits differently, should they wish. That's led to some countries opting to set social media age limits at 16, unless younger users can obtain parental consent. Though policing that is a whole other matter.

Some platforms have also experimented with running dedicated channels for children, such as YouTube Kids – but questions remain as to how the content on those channels should be monitored. Is it the responsibility of parents, or should that be down to the platform holders?

Can crowd-sourced solutions, like X's 'Community Notes' feature, play a role in those considerations?
The inevitable response to that is '*At what point do you moderate a piece of content?*'

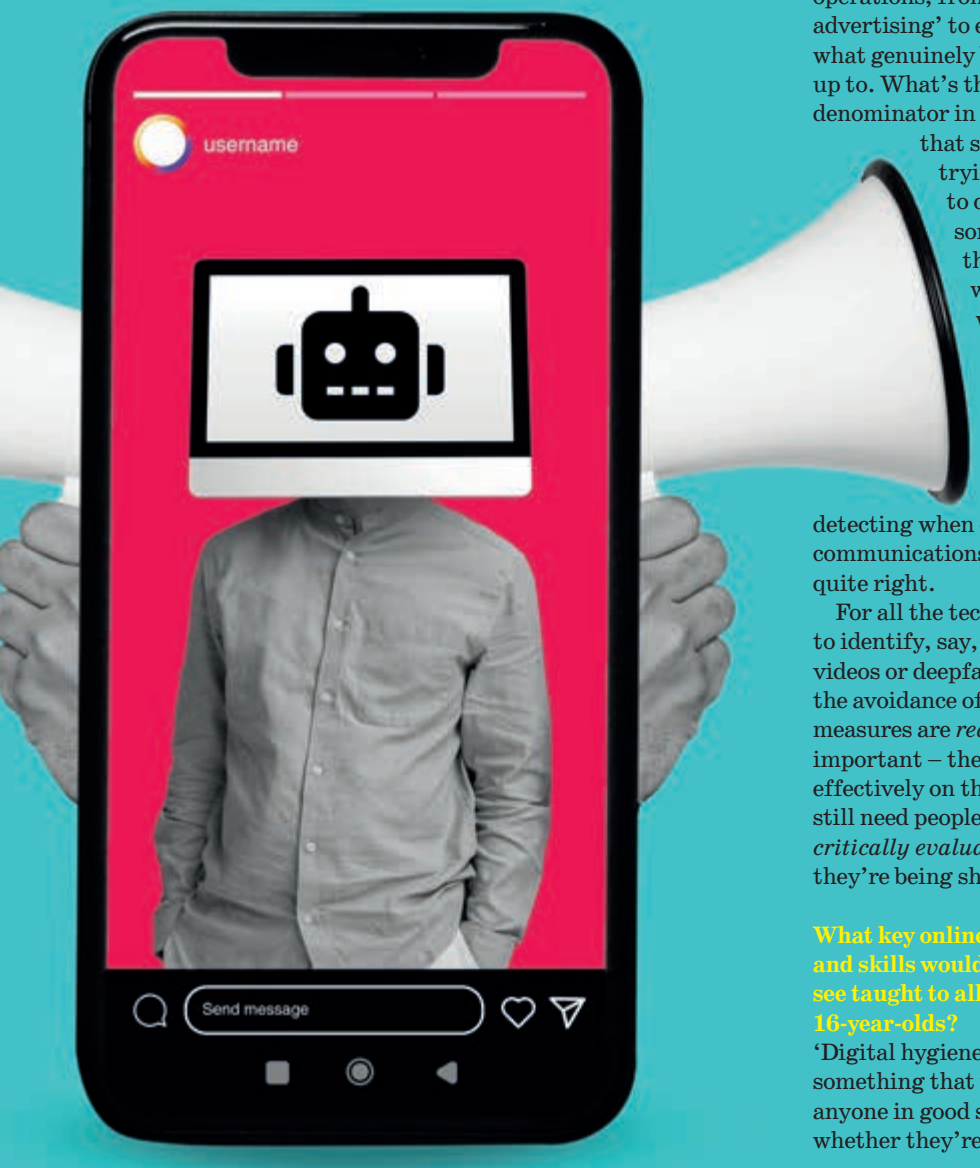
Malicious community reporting is certainly possible, by organising enough people to state that a given post is factually incorrect. You still need a system that runs things, an algorithm of some kind deciding at what point a piece of content should be marked as potentially contentious.

But such solutions won't work when people on the platforms in question already have polarised or extreme positions. Community Notes and similar measures can only be effective when people are willing to accept differing points of view.

What balance should schools strike between educating students about the online content they're accessing now, and the online experiences they can expect to have in early adulthood?
Schools already have some input into child protection and general internet safety efforts – '*Don't speak to strangers online*', and so on. I see far less emphasis on the importance of critical thinking, which I feel is a missed opportunity. Critical thinking can protect you from cybercrime and cybersecurity incidents, because when we get down to it, both are built on attempts at persuading people to take some form of action.

I first learned about bias and propaganda while studying Nazi Germany at school. Right now, there's a fantastic opportunity for us to move beyond the mid-20th century context and ask students what those same systems and processes might look like now. Because I think you'll get some interesting answers.

Some may conclude that influencers use similar strategies to promote certain consumer brands. They'll see that there's a whole spectrum of influence operations, from 'legitimate advertising' to exposés of what genuinely bad guys are up to. What's the common denominator in all this? It's that somebody is trying to get you to do something, or think a certain way. That's why critical thinking is so important – it helps develop that 'Spidey Sense' for detecting when content and communications don't feel quite right.



For all the tech we can use to identify, say, manipulated videos or deepfakes – and for the avoidance of doubt, those measures are *really* important – they can't work effectively on their own. We still need people who can *critically evaluate* what they're being shown.

What key online knowledge and skills would you like to see taught to all 16-year-olds?
'Digital hygiene' is something that will stand anyone in good stead, whether they're 16 or 76. That includes all the obvious things – like observing good password security habits and the like – but it's also about about taking just a second or two whenever you see something in a post, email, video or game which gives you pause.

That can be difficult. Technology moves fast, with people consuming and producing content at a rapid rate – but it's a form of mindfulness that can make you feel better, while also saving you from a great deal of bother.

Students should be encouraged to regularly consider '*What am I looking at here? Why have I got this? Why am I seeing this?*'

We should want young people to be less, '*Hey, there's this thing I need to react to right now*' and more, '*Hey, there's this thing – **why is it there?***'

A CRITICAL APPROACH

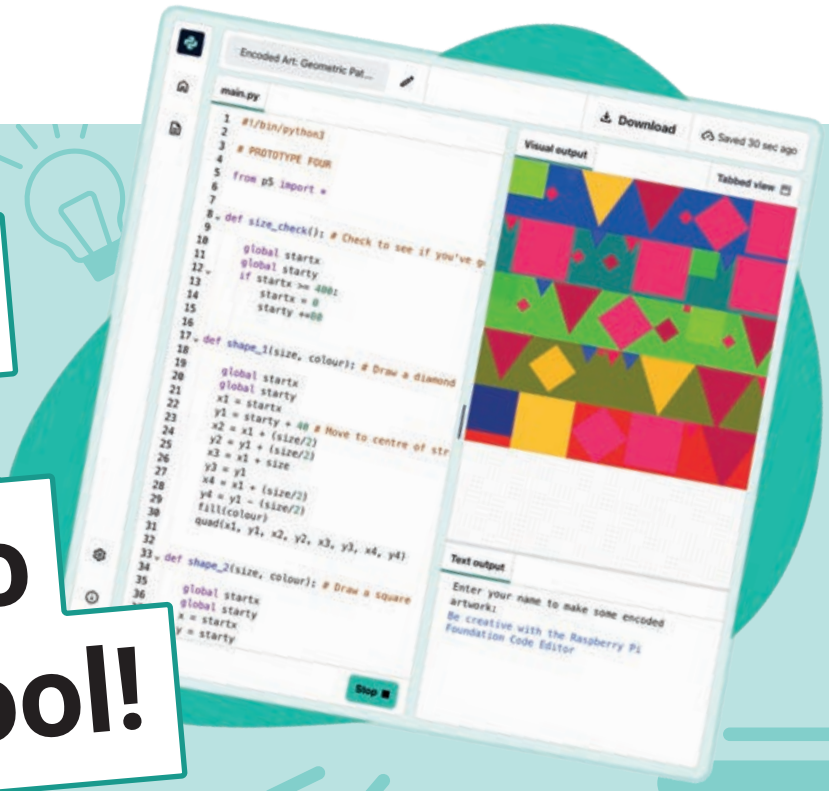
"Approaching online material critically will often involve asking a series of questions similar to those I'd use when working as an intelligence analyst:

- Who's doing this?
- Why are they opting to present the material in this particular way?
- What's in it for them by doing so?

Social media channels will usually have a specific reason for presenting something to you – be it '*Buy my latest merch*', or '*I want you to think 'this' way, so that you will take this action.*' Taking a moment to actively consider '*Why does somebody want me to think this, or do that?*' is what will ultimately save humanity from the robots."

Raspberry Pi Foundation

Introduce the Code Editor into your school!



The Code Editor helps make learning text-based programming simple and accessible for children aged 9 and up.

> **"I was trying to find good code editors and then I saw Raspberry Pi Foundation's. The fact you can create classes and create projects - it just ticked all the boxes and it's free...It's such a useful tool. I just find it brilliant. And it's got HTML and CSS as well. I've used that for my A level classes."**
>
> - Tom Mason, Head of Mathematics & ICT, St Joseph's College

Shaped by teachers, for teachers:

- Create engaging coding lessons and share them with your students: Encourage your learners to get creative with Python, HTML, CSS, and JavaScript.
- Simple and easy classroom management: Organise students into classes and help them reset passwords quickly.
- Free now, free forever: Add an unlimited number of projects, teachers, and students.
- Safe and private by design: Visibility of work at all times and verified school accounts.

Find out more and register your school: rpf.io/code-editor-ti25

WHY I LOVE...

Discover how one head of ICT utilised a coding tool from the Raspberry Pi Foundation to teach essential computing skills in a more open-ended and creative way.

FEATURED EDUCATOR :

Tom Mason is head of mathematics and head of ICT at St Joseph's College, South East London

TALKING ABOUT:
CODE EDITOR FOR EDUCATION FROM THE RASPBERRY PI FOUNDATION

Contact: info@raspberrypi.org | raspberrypi.org

Mr Mason recently set his Y10 students a creative coding challenge that they completed using the Raspberry Pi Foundation's Code Editor for Education. The challenge not only boosted student engagement, but also showcased the effectiveness of open-ended, student-led learning in computer science education.

Challenges in the classroom

Teaching coding in a classroom setting presents a unique set of challenges – one of the most significant being the rise of AI. Instead of engaging deeply with concepts like loops, conditions and sorting algorithms, students now increasingly rely on AI tools to generate entire blocks of code for them, without understanding their functions.

At the same time, traditional teacher-led instruction methods focused on isolated coding concepts like inputs and outputs often leave students disconnected from the practical and creative aspects of programming.

Against this backdrop, Mr Mason wanted to give his students opportunities to apply their Python knowledge in meaningful ways, solve problems both collaboratively and independently, and explore unfamiliar programming concepts in a guided, yet open-ended fashion.

The project

Mr Mason set a simple, but powerful brief: '*Over three lessons, build a quiz that asks 10 questions about what you've learnt on the course.*'

With this instruction, Mr Mason gave students a clear idea of what to do, while giving them the freedom to design their quiz however they liked. Students were also told that their 10 quiz questions had to relate to Python, and that after creating their quiz, their classmates would provide them feedback based on key criteria (how well the code worked, the level of creativity, the user experience, etc.)

To complete the project, students used the Code Editor for Education. Developed in collaboration with educators, and built purposefully for the classroom, the tool supports a range of teaching styles and learning abilities. Its simple interface encourages students to engage with the logic behind their code – they can't rely on autocomplete.

Results

The open-ended structure led to an explosion of creativity and problem-solving. Without step-by-step instructions, students had to independently explore solutions to questions like '*How do I randomise questions?*' or '*How can I hide quiz answers in a separate file?*'

Some students created multi-file Python projects, separating the logic controlling how the quiz worked from the content, or static information. For example, some students created one file to store the player's answers, and another file to manage the quiz interface and score logic. Students also demonstrated other advanced approaches, such as score tracking based response speeds; use of external Python libraries; custom input and output formatting; and random ordering of quiz questions via algorithms.

All students met the base requirements, but the open-ended nature of the project allowed more advanced students to push the boundaries, without the need for additional scaffolding.

Educator reflection

Mr Mason noted that the project's success was due in large part to the flexibility and responsiveness of the Code Editor. Students could iterate quickly, test their ideas and collaborate – all within a platform built for classroom coding. "*It was the most successful thing I've done.*" he says, "*I'll definitely be doing it again every year.*"

KEY TAKEAWAYS

- **Project-based learning** fosters deeper engagement and knowledge, and creative application of programming concepts.
- **Open-ended prompts** empower students to explore and develop their own solutions.
- **Code Editor for Education** encourages thoughtful questioning and experimentation, rather than reliance on autocomplete solutions. With its built-in class management and project tools, it offers a safe, browser-based environment ideal for classroom coding.

Observations REIMAGINED

Matt Newell considers the implications of combining AI with lesson observations, and whether that might spell the end of intrusive classroom visits...

The first time you stood in front of your class with a senior leader sat silently in the back row, pen in hand, you may well have felt yourself shrink to half your normal size.

Lesson observations have long been used as an accountability tool, but for many teachers, the experience has been intrusive, rather than developmental. Now, artificial intelligence is entering this space, promising to transform observation from a source of anxiety into a genuine driver of professional growth. But can AI really end the culture of tick-box visits and replace them with something more meaningful?

The problem with traditional observations

Observations are supposed to help. You care about your teaching, and about doing the best for your pupils – but how often has an observation actually left you with something useful? Too often, the focus will be on performance evaluation. A fleeting visit produces just a snapshot of your lesson and, if you're lucky, a short note afterwards.

Research carried out by the Education Development Trust in 2020 found that over 70% of teachers said feedback from observations didn't support their professional development. More than 60% of leaders meanwhile admitted that their evaluation systems were ineffective.

That disconnect is telling. Feedback is essential, but the way it's been delivered has often felt more like surveillance than support.

From accountability to growth

The most effective observations place emphasis on pedagogy, not performance. When the process highlights what's happening in the classroom, rather than passing judgement on the teacher, it begins to feel more like an opportunity than an ordeal.

Video has already opened this door. Instead of juggling timetables and cover for in-person drop-ins, you can record a lesson, reflect on it at your own pace and then choose what to share. This simple act of control changes the whole dynamic, with recordings allowing for deeper reflection and space for professional dialogue, rather than just leaving you with a fleeting impression from a hurried visit.

And it's here that AI can offer something new. Recordings can be analysed and used to provide insights in minutes, highlighting patterns that might have otherwise gone unnoticed. AI can track how you distribute questions, how much wait time you allow and the ways in which dialogue flows across the class.

That kind of analysis can deliver clarity. Instead of vague notes about '*needing to work on questioning*,' you can now see tangible evidence detailing who you called on

and how pupils responded. The conversation moves away from personal judgement and onto the teaching itself.

For many teachers, this can make the process less intimidating. Trying out a new strategy immediately becomes less risky when you can explore its impact without having to wait weeks for another observation slot.

strategies or training that feels unconnected to the classroom. It can leave you feeling like a passenger in your own learning.

Research published by the Education Endowment Foundation in 2021 showed that generic, one-size-fits-all training offered little benefit, while personalised professional development

> ***"Effective observations place emphasis on pedagogy, not performance"***

Time – the rarest resource

Your time is precious. Between teaching, planning, marking and all those endless extras, professional development can feel like a luxury – which is why meaningful feedback so often slips between the cracks.

AI has the potential to change this, by taking over those repetitive, time-intensive aspects of observation such as logging interactions, coding behaviours and mapping classroom talk. This doesn't *replace* professional feedback; it clears the ground *for* it. Coaches and mentors can then focus on the human side of this work – the encouragement, questioning and challenging that will help you move forward.

What's more, this efficiency scales. In a large secondary school or trust, leaders can't possibly observe everyone directly. AI-enhanced feedback makes it viable to support many more teachers in a more consistent way.

Teacher agency

One of the most powerful shifts that AI can support is giving you greater agency over your own development. Too often, professional development has been something *done to* teachers: generic sessions, broad aligned to context and goals, proved to be far more effective.

With AI, observation can become part of that personalised journey. Instead of waiting for occasional feedback dictated by someone else's timetable, you can engage with evidence of your practice whenever you choose to.

Over time, this then builds a stronger sense of ownership. You can spot your own patterns, measure your progress and decide where to focus next. Observation stops being something done to you, and instead becomes a process *you* direct, with evidence and conversation as your guides.

Risks and realities

There are some real concerns, of course. Who owns the observation data and how will it be used? Teachers need to know that lesson analysis is there to support them, not to provide more fuel for further performance monitoring. Leaders must be explicit that these AI tools are for development purposes only and not for surveillance.

There's also the question of balance. Data shows patterns, but never tells the whole story. A classroom is more than data – it's atmosphere, relationships and the subtleties of human interaction. AI should sharpen professional judgement, not replace it.

A cultural reset

The introduction of AI into lesson observation doesn't involve handing over your practice to an algorithm. It's about giving you clearer evidence more quickly, to facilitate sharper, more substantive and productive conversations around teaching.

When data is used to start a dialogue, rather than close it down, the subsequent feedback will feel less like criticism and much more like a positive collaboration. When leaders use AI as a tool for growth, rather than judgement, the culture around observation shifts.

Intrusive classroom visits won't disappear overnight – but with recordings and AI, the conditions are set for a new observation process that respects your professionalism, and which can genuinely support your growth as an educator. By combining the flexibility of recordings with the analytical power of AI, lesson observation can move beyond intrusive visits to becoming something teachers will actually want to engage with.

The question isn't whether AI *will* change observation – it already has. The challenge is whether schools will use it to end the cycle of surveillance, and build a culture where observation finally delivers on its promise of helping every teacher and every student to thrive.

ABOUT THE AUTHOR
Matt Newell is director of technology at IRIS Connect; having introduced secure video to UK CPD almost two decades ago, Matt now pioneers AI-driven teacher development solutions. For more information, visit irisconnect.com/uk

5 STEPS TO BETTER OBSERVATION

1 Replace in-person visits with recordings
Recording lessons removes the scheduling headaches involved with sourcing cover and observers. It also gives you a file you can revisit, reflect on and – should you choose – share with colleagues. Most importantly, it creates a foundation for using AI to generate insights.

2 Choose what to share
A recording puts you in control. You decide which clips to show colleagues and mentors – be it a high point worth celebrating, or a tricky moment you want advice on.

3 Start with one focus
Zero in on a single area of practice – such as questioning, student engagement or pacing. This makes feedback clearer and more actionable. If you can't decide what to focus on, AI can also pinpoint relevant areas to you, based on the content of the recorded lesson.

4 Let AI handle the analysis
Have AI assume the tedious task of sifting through the recording and identifying key teaching moments for you to reflect on. This will let you use what little PD time you have on actual learning.

5 Keep the conversation human
AI can highlight patterns, but it's professional dialogue that will give them meaning. Pair the AI's analysis with reflective conversations between you and your peers, a coach or mentor to unlock genuine growth.

Enable personalised teacher-led PD at scale

with AI-assisted Coaching, Reflection & Collaboration tools

"Through IRIS Connect, the teaching and learning strategy takes on a life of its own, it becomes something that we're all talking about and doing, it becomes a part of our culture, not just professional learning."

Anna, Sir Thomas Wharton Academy

Better teaching. Better outcomes.

Jump right into our expert-built frameworks and resources or work with us to create a custom experience for your organisation.

www.irisconnect.com/uk

iris CONNECT

WHY I LOVE...

Get a better sense of your professional development needs, available options and potential paths forward with the suite of tools available from IRIS Connect...

ABOUT US:

Kate Hall is director of education at Hales Valley Trust in Dudley, West Midlands, which consists of seven primary schools, ranging from one to three-form entry, including nursery provision.

TALKING ABOUT:
IRIS CONNECT'S COACHING, COLLABORATION AND REFLECTION TOOLS

Contact:
0333 136 2484 | info@irisconnect.com
irisconnect.com

How long have you been using it?

We've been working with IRIS Connect for nearly 10 years. It was first introduced at one of our three-form entry schools, and since 2022 has been embedded in our school improvement strategy across the trust. It's now used consistently in all seven of our schools to support teacher development and quality assurance, directly underpinning the priorities of our Trust Education Excellence Strategy.

Why are you such a fan?

I value IRIS Connect because it provides staff with a supportive, non-threatening way to improve their practice. This reflects the Education Excellence Strategy's commitment to building a culture of professional growth, where staff feel safe to reflect, take risks and refine their practice. The impact of this is improved teaching quality, which directly enhances the life chances of the children in our care.

What have you achieved with it?

At school level, IRIS Connect has helped establish a consistent language around effective teaching that's aligned with our strategy. It's enabled focused CPD that's tailored to individual and team needs, while also improving the quality and frequency of developmental conversations. Teachers are more engaged in reflective practice, and feel a greater sense of ownership over their professional growth – an essential component of the strategy's focus on professional excellence. Leaders are also able to identify strengths and areas for support with greater precision, which has resulted in sharper and more impactful development planning.

At Trust level, IRIS Connect has created a cohesive professional learning community across our schools. It's supported cross-school coaching, the sharing of excellent practice and consistent quality assurance of teaching standards. The platform has been integral to delivering trust-wide initiatives, such as curriculum moderation and subject-specific CPD, ensuring alignment while still celebrating diverse strengths across settings. This reflects the 'collaborative excellence' strand of our strategy. It's also proved invaluable in accelerating the development of ECTs and middle leaders, helping to build sustainable leadership capacity across the trust.

This sustained focus on high quality, collaborative professional development is improving the consistency and effectiveness of teaching across our schools. As a result, pupils' learning and outcomes are benefiting, which directly supports the strategy's goal of excellence for pupils.

Why should other schools consider using it?

IRIS Connect is not only a robust and impactful platform, but one supported by a team that's highly accessible and responsive to schools' evolving needs. They have been genuine partners in our school improvement journey. We're currently collaborating in a working group focused on developing the use of AI within the platform, and exploring how AI can enhance professional reflection, streamline coaching feedback and improve insights into teacher development needs. This forward-thinking partnership reflects the innovative excellence strand of our Education Strategy. It gives us confidence that IRIS Connect will continue to be a central and progressive tool, genuinely useful for staff at every level across the trust.

WILL IT WORK FOR YOU?

- **Adaptive pathways** Step-by-step PD frameworks that adapt to your needs. Experience guided reflection, coaching and collaboration.
- **Video tools** Record, review and share teacher-controlled, GDPR compliant classroom videos within and between schools.
- **AI Insights** Save time reviewing lessons. Analyse recordings at the click of a button and jump straight to the moments that matter.
- **Technique Guides** Access our practical library of teaching techniques directly within the platform. Also allows WalkThrus integration.

Tech, teaching AND TRUST

Teachers aren't going to be replaced by artificial intelligence any time soon, says **Colin Foster** – and here's why...

Why do we need teachers any more? After all, for many years now we've been able to look up information on Google or Wikipedia and get instant, factual answers.

When I was a child, I had to visit the local library and crawl around on the floor leafing through heavy, outdated copies of the *Encyclopaedia Britannica* to find the equivalent information. In so many ways, the internet has been a massive step forward in terms of discovering information.

But if we want to ask more complex questions, then what we often really need is someone to interact with – which is where human beings have tended to come in very handy! More recently, however, even that seems to have changed with the rapid growth and adoption of large language models...

Competing with the machine

If our artificial intelligence prompts are sufficiently well-engineered, then AI can often respond in highly sophisticated ways, rather like a knowledgeable human might. I sometimes like to run my draft articles through an AI and ask it to give me five objections to my argument. One or two of them might be a bit flimsy, but I'll often find that there's some idea I hadn't considered, and that the process helps me to improve what I've written.

Of course, AI isn't perfect, and the errors, hallucinations and outright bluffing to which it's prone can often be hilarious. But whatever AI's limitations might be today, by the time you're done reading this article, they will surely be less pronounced than before. Improvements are coming much faster than most of us would have predicted a few years ago, and the change is going in only one direction – that of progress.

So, amidst all this, what duties are left for the role of the human teacher? If the students of the future can learn by conversing with an intelligent AI that has access to the best of all that has ever been written or said, then how can a mere human teacher possibly compete with that?

Big betrayals, big consequences

One answer to why we'll still need teachers is *trust*. We build relationships with human beings, and we learn to trust them and rely on them. If people let us down, or disappoint us, that will affect things going forward in the relationships we have. And big betrayals can have big consequences – even professional ones, for someone with the responsibilities of a teacher.

> **"AI has no shame, and doesn't feel guilty for having led you astray"**

AI has none of this. It lives in the moment, bluffs when it's trained and rewarded for doing so, and has no investment in the person it's communicating with. It will give out incorrect – possibly even dangerous – information without a care. If you point out that it's wrong, it won't argue; it will just shift ground and try telling you something different in order to see whether you might like that response instead.

It's true that AI is often right about its facts, but it's just as confident when it's wrong. When it misleads, it will generally admit it – but AI has no shame, and doesn't feel guilty for having led you astray and wasted your time. You might find AI useful, but you can't trust it in the way that you might trust a human teacher.

An honest lack of expertise

What about expertise? I was reflecting on this recently, thinking about some of my experiences as a teacher when I stepped outside of my expertise. I

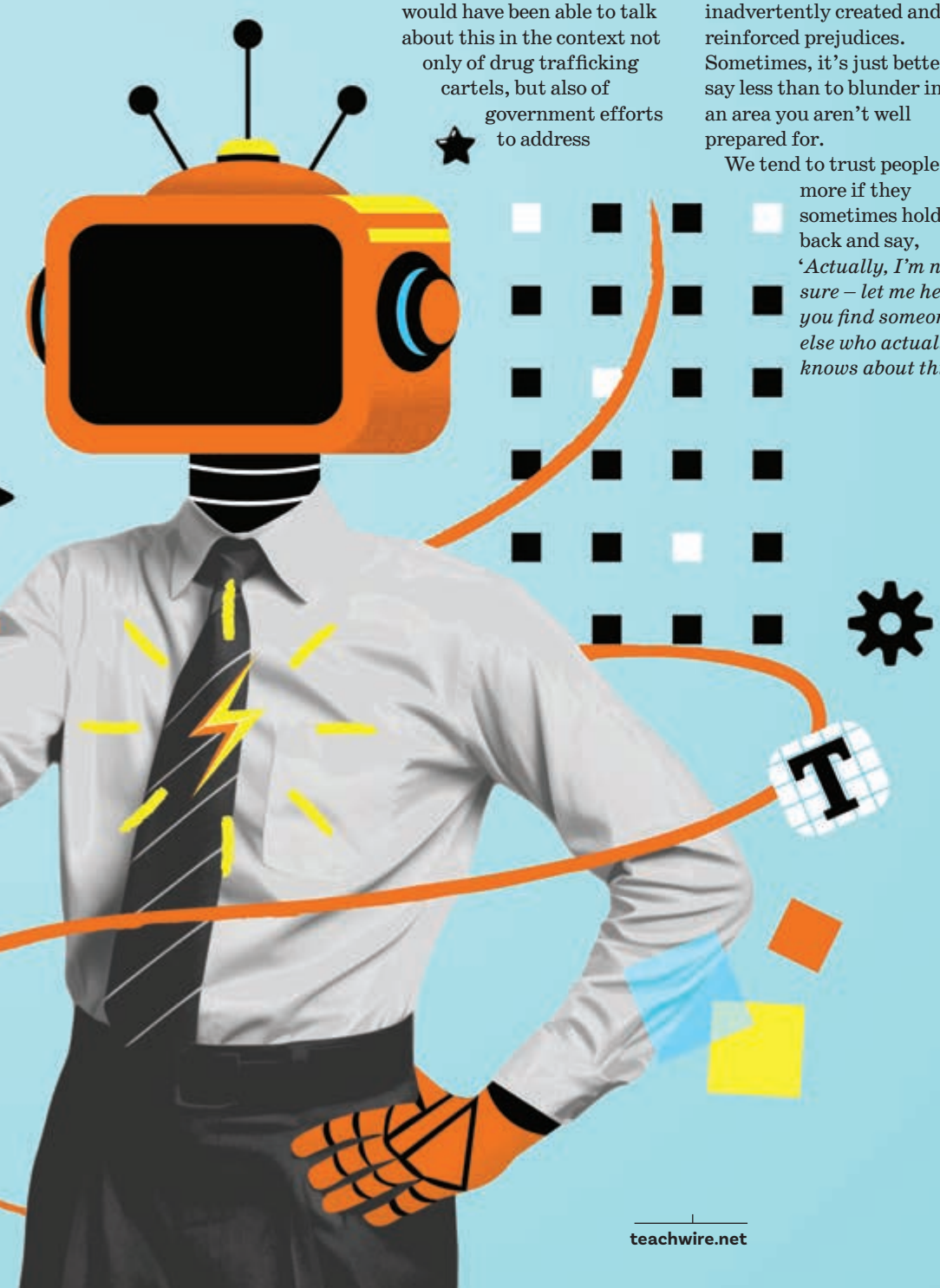
remember once covering a geography lesson, which is certainly not an area of speciality for me. The lesson had something to do with Colombia, and a student said, "*They have lots of drugs in Colombia, don't they?*"

I wasn't sure how to respond. It sounded like it could be a dangerous stereotype – offensive, even – to make such a sweeping statement about an entire country. But I could imagine where this comment might be coming from. I think most of my knowledge about Colombia is based on my extensive familiarity with *James Bond* films, and so I think I also had this sense about Colombia. From my position of geographical ignorance, I thought, "*That's either true, or it's a very common misconception – and I don't know which.*"

An actual geography teacher, with actual expertise, would have been able to respond properly to this comment, They would know that the illegal drug trade in Colombia is definitely 'a thing'. But they would have been able to talk about this in the context not only of drug trafficking cartels, but also of government efforts to address drug-related crime. They would have been able to give a balanced response that didn't leave the student with a misleading impression of an entire country. I was way out of my depth, and had to advise the students to talk with their geography teacher about it when she was back.

Note, it wasn't the case that *I couldn't think of anything to say* in response to the student's comment. I could have easily said all sorts of things, but they might have been completely wrong, or at the very least, unhelpful, and could have inadvertently created and reinforced prejudices. Sometimes, it's just better to say less than to blunder into an area you aren't well prepared for.

We tend to trust people more if they sometimes hold back and say, '*Actually, I'm not sure – let me help you find someone else who actually knows about this.*'



Modelling humility

Another way in which teachers can help students in the context of AI is to model *intellectual humility*, which students won't see, or be able to learn from in their interactions with large language models.

As teachers, we don't simply grab hold of the first view or answer that comes to mind, just so that we have something to say. We want to first check that we aren't misunderstanding or misrepresenting what we've been asked. AI, at least in its current form, seems to lack this sense of caution. It doesn't hesitate. It plunges in straight away with an immediate answer, and if it's wrong, it's wrong.

It behaves a little like the worst kind of politician – one who always has a simple, instant view on anything you care to bring up, but not necessarily any positions or perspectives that are well thought through.

As teachers, we can model a slower approach than AI; one where we take time to sift and weigh up facts. Yes, we can look up information when we need to, but we don't 'look up our views'. We form those ourselves, by critically assessing the facts and learning from other people's perspectives. We accept that we might be wrong, and try not to be.

If we're unsure, then we'll say so. Because there's still lots that students can only learn from their all-too-human teachers.

ABOUT THE AUTHOR
Colin Foster (@colinfoster77) is a Professor of Mathematics Education in the Department of Mathematics Education at Loughborough University, and has written many books and articles for teachers; find out more at foster77.co.uk

REASONS TO TRY...

4 Apps for Good's Free Computing Courses

Introductory computing courses aimed at KS3, designed to equip students with the skills and motivation they'll need to thrive in an ever-changing digital world

1 FREE, ADAPTABLE AND INCLUSIVE

These open-source courses are ready to use or adapt for both computing and non-specialist teachers. They fit easily into curriculum or enrichment time, and have been proven to boost confidence and interest in computing – particularly amongst under-represented groups, such as girls.

2 INDEPENDENT LEARNING

69% of secondary teachers cite disengagement as a barrier to learning*, making it essential to link classrooms to real-world issues. The courses do exactly this, putting students in the driver's seat to solve problems that matter to them and their communities.

3 INDUSTRY ENGAGEMENT

A key part of each course is to provide students with embedded opportunities for gaining valuable career insights and connecting with real-world role models. The courses also support schools in meeting career readiness goals, fulfilling Gatsby Benchmarks 4 and 5.

4 ESSENTIAL DIGITAL SKILLS

At the heart of the courses are skills. Skills Builder-accredited, the courses build core computing knowledge and digital literacy, alongside skills like teamwork, creativity and problem-solving – all vital for success in school, work and life.

*Pearson School Report 2025

Apps for Good

Contact:
education@appsforgood.org
appsforgood.org

At a glance

+ Choose from three exciting themes: 'Climate Action', 'Social Action' or 'AI for Good'

+ *"I found it really fun. I enjoyed coming up with solutions to global problems."* – Mara, Y7 student, Dunoon Grammar School

+ *"Apps for Good is a good first step to get women into technology."* – Kamona Karim, computing teacher, Putteridge High School

Make digital learning matter

Linking digital projects to real-world issues can inspire students, while helping them develop transferable digital and essential skills, says **Natalie Moore**

We often think of young people as 'digital natives', yet it's perhaps more accurate to say that most are passive consumers of technology. Too often, it's assumed that a generation fluent in swiping and scrolling is already well-equipped to innovate – but that's a myth.

According to the 2024 UK Consumer Digital Index, 7.3 million UK adults lack digital skills. The real challenge we face is inspiring the next generation to become purposeful *creators*, able to apply their technical abilities to the solving of tangible, real-world problems.

Tackling disengagement

So, how should we go about closing the gap and ensuring that every young person leaves education equipped with the skills, confidence, and mindset needed to thrive as well-rounded citizens in the digital age?

From my conversations with educators, there's a widely shared belief that linking skill development to relevant, real-world contexts is key for building the capabilities that young people will need in the digital era. Steve Hall, Deputy Director of School Improvement at LIFE Multi-Academy Trust, articulates this well when reflecting on the trust's computing curriculum: "*We wanted to connect digital skills with real-world issues, helping students see the relevance and potential of what they were learning. We wanted them to imagine, design and create solutions with real impact.*"

As noted in the 2025 Pearson School Report, 69% of secondary educators believe disengagement to be a major barrier to learning, with students eligible for free school meals seeing the sharpest declines in motivation and participation.

In a May 2025 report, titled 'Mind the Engagement Gap: A National Study of Pupil Engagement in England's Schools' (see tinyurl.com/ts146-T1), Professor John Jerrim notes that "*More than one in four pupils begin to disengage from school during Year 7... with engagement particularly low among girls and disadvantaged pupils.*"

If we want to prepare every child for the opportunities and challenges ahead, then we urgently need fresh approaches to spark their interest – which should include creating dynamic classrooms with hands-on experiences that reflect the energy of the real world. Industry professionals can play a vital role in this, as positive role models able to provide valuable insights into students' potential future career pathways.

Essential skills for the post-AI age

Integrating essential skills into the curriculum goes far beyond just boosting engagement, however, crucial though that is. These skills form the bedrock of digital capability. Young people won't thrive with technology if they can't collaborate effectively, adapt to change, actively listen, solve problems creatively or generate ideas in new ways.

As the youth-led Shadow Curriculum Review (see shadowpanel.uk) starkly puts it, "*Formal education should better support the civic, social and emotional development of children and young people. Currently, we see students graduating with the grades but not the skills required by employers, nor broader competencies needed for them to thrive in life.*"

AI is fast becoming a ubiquitous technology, and it seems here to stay. That makes the need to give young people opportunities to develop essential skills all the more pressing – especially among those from less advantaged backgrounds. The Essential Skills Tracker 2025 (skillsbuilder.uk/essential-skills-tracker) warns of a new divide between individuals who possess stronger essential skills that are quick to embrace AI and those who don't, raising the prospect of yet another barrier to social mobility.

As the Skills Builder Partnership goes on to say of the first group, "*Their higher levels of essential skills, which are highly transferable, will make transitions into new roles easier. It's therefore possible that the AI wage premium will grow further, and that those with lower essential skills, who use AI less, could be at a significant disadvantage.*"

If we want to close that digital divide, and properly prepare every young person for a future driven by technology and AI, we need to give them more than theory. Schools need practical, accessible and adaptable ways of bringing digital learning to life, so that opportunities aren't limited to the most advantaged. To move social mobility forward, we must champion a dual focus on essential and digital skills for every young person.

ABOUT THE AUTHOR

Natalie Moore is CEO of Apps for Good – an education technology charity providing free computing courses that put young people in the driving seat. The courses empower students to use their lived experiences to design app prototypes to tackle real-world problems that matter to them. To find out more, visit appsforgood.org

The appliance of SCIENCE

As any science teacher knows, practical lessons are often challenging, but hugely rewarding – **Kit Betts-Masters** offers some advice on ensuring yours go without a hitch...

14 years ago I was a young, somewhat supercilious teacher in a training session. The Association of Science Education trainer was explaining to us why he'd left teaching after a few difficult years 'at the coalface', as he put it.

He'd clearly found his calling, because what followed was a considered session, with a clear and actionable message that's stayed with me throughout my career. (And I'd still maintain that if you ever find yourself lacking enthusiasm, or needing a new spark, enrol yourself on a course from a professional subject body).

He asked us: "*Why do we do experiments?*" All kinds of suggestions were put forward by the assembled science teachers – '*Engagement!*' '*Additional context!*' '*Better understanding!*' and so on. Our trainer took those suggestions on board, and then said, "*None of you have said 'because that's what science* ***is.***'"

A verb and a noun

In all honesty, many students think experiments are an easy ride compared to sitting and writing. If you were to ask some of our science students '*Why do you enjoy the experiment lessons?*' they'd probably tell you, '*Well – it's more fun, isn't it?*'

Tell them they're doing a practical lesson, and many students will look forward to a bit of downtime whilst something heats up, or some plant starts bubbling. As the teacher, however, *you* of course know that it won't be an easy lesson at all. Because experiments are very hard to do well.

It's hard to keep students engaged while ensuring that they're actually learning something useful. And alongside that are all the usual worries you'll have around there not being enough time to complete the method, plot the graph, or even pack away in a calm and orderly manner at the end of the lesson.

And yet, as our ASE trainer memorably put it, "*Science is as much a verb as it is a noun. In science, experimentation is the process of making new knowledge.*" So how do we get students to understand that? How do we get them to feel like they're part of that process, and to maybe one day love it?

Changing the atmosphere

Ask students what science is, and the most common answer you get will be some variation of '*Science tries to explain how things work.*' That's not incorrect *per se*, but it doesn't tell the whole story. A useful rephrasing might be, "*Science* ***lets you explain*** *how things work.*"

By performing experiments, we're helping them to model their universe; to make sense of the evidence in front of them.

I recommend having a discussion with your classes about what science is, the purposes it serves and the potential science careers they could pursue. When I get that discussion right, the atmosphere of that and future lessons changes. The kids henceforth arrive at the door expecting a lesson that will fascinate them, which makes it a joy to guide them through the material.

Pick a time for this discussion when you think they're ready for it – maybe after completing a practical lesson that they really enjoyed, or as preparation for an important upcoming experiment.

Engage them with the interplay between the process and theory of science, and explain how science isn't 'fixed', but rather seeks evidence, and then uses that evidence to develop models. Explain

"By performing experiments, we're helping students to model their universe"

how, if we obtain new evidence, then we change our model – and how they can play a part in that process.

Work to do

A decade on from that training session, circa 2021, I was a head of science. The department was navigating pandemic arrangements, determining students' GCSE and A Level grades while simultaneously managing their wellbeing (and our own).

For the practical elements of the course, we'd come to rely heavily on incorporating simulations and video demonstrations into our online lessons – and part of me wonders if we developed habits at that time that we haven't yet managed to shift.

I took the time to read Ofsted's 'Science' entry in its ongoing subject report series and would recommend that all science teachers do the same. What I found most meaningful was its recognition of the need to explicitly teach both *disciplinary knowledge* (the processes of science) and *substantive knowledge* (the conclusions science has reached).

I'm certainly not against science teachers spending large portions of time giving skilled expositions, using repeated and spaced retrieval practice to speed up recall and practising the application of powerful knowledge to exam questions. Yet to my mind, we still have work to do if we want to make our teaching of practical science as good as our teaching of theory. And that will only happen if we talk about it more, and commit to doing more practical science in the classroom.

Teaching the process

In February 2023, Ofsted released a report on science education titled 'Finding the Optimum' (see tiny.cc/ts142-SP1). I'll paraphrase here two of its key recommendations:

- Clearly outline the essential knowledge students need to work scientifically, covering all aspects of inquiry, like pattern seeking, evidence and accuracy – not just techniques or fair testing.
- Provide every student with purposeful, high quality practical work – including labs, fieldwork and teacher demonstrations – at secondary level

Consider what percentage of your time involves teaching the *process* of science. How often are you telling stories about how scientific knowledge progressed, while weaving in demonstrations and quick, low-stakes practical activities? These can link pieces of substantive knowledge and make them more memorable. Even if students aren't discovering something entirely new, involving them in the practical process brings the story of science to life.

And as an old friend once said to me (albeit using more choice language) – unlike a textbook, booklet or exercise book, you can't doodle on experience.

Net benefits

The current exam specifications do include mandatory practical elements, due to worries among curriculum designers that we'd otherwise see a gradual decline in practical school science.

They were right to be concerned. According to the Royal Society's Science Education Tracker (see tiny.cc/ts142-SP2), only 26% of GCSE students completed hands-on practical work at least fortnightly in 2023, compared to 44% in 2016. This decline was prompted not just by exam pressures, but also by budget constraints and reduced technician time.

Remember – including practical science in your lessons isn't just a net benefit to the fullness of your students' education, but will also be useful for their exams.

Consider one of the topics you're due to teach. List the practicals and demonstrations that you love (or add to them via a quick online search), and revisit those that you see illustrated in the textbooks – most of which can be performed using the resources you already have in your school's cupboard areas. Personally, I'm thinking about the famous tale of how Archimedes left his bath. It's always good for a laugh, and helps ensure that the subsequent practical proceeds with a smile.

Both you and your students will come to enjoy your science lessons more. They'll get more out of the time they spend in your classroom, and start to see how science is so very different from other subjects. Because none of us fell in love with science for the rote learning of facts.

ABOUT THE AUTHOR
Kit Betts-Masters is a lead practitioner for science and produces physics, education and technology videos for YouTube under the username @KitBetts-Masters; for more information, visit evaluateeverything.co.uk

STEPS FOR SUCCESS

Here are some practical tips for accommodating a full science experiment within the time constraints of a one-hour lesson...

1 BE ORGANISED
Carefully plan and collaborate with your technicians. Providing clear, detailed requisitions in advance helps avoid any surprises!

2 USE YOUR TIME WISELY
Estimate how long tasks will realistically take, and get students collecting data as quickly as possible. Spread your planning or analysis tasks across other lessons, if needed.

3 CALIBRATE THE CHALLENGE
Assess your students' existing experience and skills, and anticipate which parts of the method will be most challenging for them.

4 WATCH YOUR DELIVERY
Use clear, step-by-step instructions at all times; assign specific roles in pairs, so that everyone stays engaged.

5 KEEP THE CLASS OCCUPIED
Avoid forming groups larger than two to minimise distractions. Plan productive activities for any unavoidable 'wait times', like forming hypotheses or packing the equipment away.

6 FORMULATE A PLAN B
Test practicals yourself and review all safety rules beforehand. Have a backup plan in place, like a demo or example data, to ensure the lesson stays on track in the event of any problems.

7 STAY FOCUSED
Focus on the core learning objectives and simplify the outcome, if this will have greater impact.

A NEW ITERATION

Tony Ryan reflects on how D&T has evolved as a subject in terms of what it used to be – and what it now *has* to be...

In terms of where D&T currently sits within the secondary curriculum, it's a complicated picture. Our biggest problem is currently staff numbers, which have declined from 15.5 thousand trained D&T teachers in 2009, to around 6,300 now.

That's due to a combination of people taking early retirement and others dropping out of teaching altogether – sometimes because their skill sets make them highly employable in other sectors.

This has essentially left us without enough teachers to cover the subject. At the Design and Technology Association, we regularly hear from secondary leaders who really value the subject, and want it on their curriculum, but are encountering real difficulties in sourcing the subject leaders they need.

As such, we're seeing a growing number of art and design teachers now teaching D&T – some quite willingly, while others have been left with little choice in the matter. Without these non-specialists teaching the subject, there wouldn't be the cover for it at KS3, so we welcome them with open arms – but they need support and suitable professional development.

Art and design and D&T might have the word 'design' in common, but they really are two completely separate subjects.

Secondary leaders struggling to find staff therefore have a decision to make. Should they push for a thriving art and design department *and* a thriving D&T department? Or should they – as some have – combine them and provide one offer? In my view, by combining those two subject areas into one you'll only be dumbing both down.

From 'making' to 'designing'

On reflection, however, do we need to change as a subject? Do we need to move on? Yes, we do – and in the best departments across the country, that's what's exactly been happening.

For one thing, there needs be an increased emphasis in D&T on matters of sustainability. The design process behind every object ought to start with a series of questions: '*Does does the world need this?*' '*Will people actually use it?*' '*What does its end of life look like?*' '*Will it end up in landfill?*' '*Can I recycle it?*' Those are the kind of questions that need to be in the KS3 D&T curriculum.

It's not necessarily meant as a criticism, but some schools have lapsed into seeing KS3 D&T as being solely about 'making things'. Students will make a clock, then a pencil case, then possibly a bird box, maybe a cushion in textiles.

Plus, if we're not careful, we come to be seen as a subject where kids with behavioural issues get sent, because they struggle to sit and pay attention within standard lessons and classrooms. The thinking can be '*Let them go and 'make something instead.*'

We've got to be more than that. And in those top departments across the country, we are. They're leading a move in D&T away from simply 'making', to placing more of an emphasis on the process of designing, prototyping – and failing.

The importance of failure

The school system at the moment is largely set up to ensure that students *don't fail*. Deeming it acceptable for students to fail at tasks is typically viewed as 'the wrong thing to do' – but in our subject, you can't create anything new, or really design anything of worth, without first failing. In D&T, you *are* going to fail at some point.

"We want students to see the world through the eyes of whoever ends up using the object they're designing"

The trick is to recover quickly, learn from what happened and then go again. We need students to develop that tenacity, and to perceive failure not as an endpoint, but as just another stage in their design journey. And that can be a difficult thing to teach the average 12-year-old.

Also intrinsic to our subject is the need for empathy. We want students to see the world through the eyes of whoever ends up using the object they're designing: '*How warm is material I'm using? When it's picked up, will it feel cold? Does that matter? How well will it fit in the user's hand?*'

A problem-solving subject

I don't believe the only object of education should be to prepare students for work, but that's at least partly what we're here for. We're there to give students the skill sets, attributes and knowledge that will allow them to progress to the next stage in their lives – which will include work.

Yet in many schools, there's often been little correlation between what's happening in their D&T departments and the larger developments shaping business and industry, so we've tried to bring both sides closer together (see 'Inspired by Industry').

Placing real world industry problems into a wider context that students can work in, and which teachers can integrate into their curriculum backed up by teaching resources, will help us to make D&T into a problem-solving subject, rather than one that's just about making things.

Creating thinkers

That said, the act of 'making' will always be part of the subject. Those kinaesthetic, hands-on experiences are important, but they don't have to always be the end product. We can instead prototype on our way *towards* an end product and build up a flow of ideas – from students' imaginations to cardboard, to polystyrene, eventually CAD and onwards.

Something I often hear is that '*The kids like taking something home.*' Yet we never hear the same thing in, say, physics. Yes, it's a nice thing to do sometimes, but we can't allow that to be the sole purpose of our subject. Our purpose should be to create thinkers; people who can look at a problem and identify potential solutions.

This change in the nature of what D&T involves is partly why many departments are changing the conception of what a school D&T workshop is. If you're not actively teaching engineering, then you probably don't need four full-size lathes, as you might have had in a traditional workshop 20 years ago.

In effect, we're creating design studios where students can work with a range of materials. Instead of dictating the materials students must use when tasked with the same build project, we're now presenting problems and asking students to choose the materials best suited to the task at hand.

Warm nostalgia

When visiting a school in the Humber, I saw how there were plastics in one corner of the room, metals in another, and plenty of cardboard and assorted bits for prototyping. The students were allowed to move around the space, with the teacher acting as a facilitator.

We want students to be able to switch easily between using CAD, hand drawing and using a 3D printer, because that's how industry operates. A company like Joseph Joseph will have a huge area at the centre of their design studio – a messy space full of materials, where designers can essentially experiment and play, and discuss their designs before moving to the next step of the process.

We're also looking at parental perceptions. Often, when parents visit school workshops they'll smell that wood dust and talk wistfully about how they once made a clock, and this, and that. You'll hear few people say that they hated the subject, but even that warm nostalgia can cause issues. A parent once told me, "*You need a new smell, because that smell brings me back, not forward.*"

I quite like that observation, as it sums up where we are. We need to be looking forward. Yes, we should be informed by what's gone before, and take those practical skills with us – but we also need to be looking at the skill sets that kids will need to live, thrive and work in a very different environment to that which they would have entered 20 years ago.

It's a long way from making a clock.

INSPIRED BY INDUSTRY

We know that professional development is hard to come by in schools at the moment, which is why we've launched 'Inspired by Industry' – a suite of learning materials aimed at KS3 D&T teachers. We've taken difficult design challenges, developed some accompanying support materials, and then invited students to wrap their heads around a problem they've been presented with, and see what ideas and suggestions they might have for resolving it.

One example saw us working with a design agency that had been set the following brief by Age Concern: '*Loneliness among elderly people is a bigger problem than it's ever been. Design a solution that's going to help elderly people overcome loneliness.*'

We've produced 20 such challenges to date, with a further five to follow soon. You can find more details about Inspired by Industry at **inspiredbyindustry.org.uk.**

ABOUT THE AUTHOR
Tony Ryan is chief executive officer of the Design & Technology Association; for more information, visit designtechnology.org.uk

REASONS TO USE...

5 Access Education Suite

Why the Access Education Suite and pricing bundles are the antidote to system chaos...

30 SECOND BRIEFING

Access Education delivers what schools actually need: one platform, one trusted provider, one contract. Our integrated Suite bundles eliminate the complexity of multiple disconnected systems whilst providing predictable per-school pricing.

1 SIMPLICITY THROUGH INTEGRATION

Gone are the days of wrestling with multiple logins and incompatible systems. Access Evo serves as your single secure portal, housing all essential school software with seamless single sign-on functionality. This eliminates the complexity of managing disconnected systems, dramatically reducing administrative burden and freeing up valuable time that should be spent on supporting students' education – not system navigation.

2 PREDICTABLE AND TRANSPARENT PRICING

Forget unpredictable 'per-employee' or 'per-pupil' pricing models that make budgeting a nightmare. Our cost-effective pricing bundles operate on straightforward per-school pricing. This provides the budget predictability and planning certainty that school leaders desperately need, without any hidden costs or unpleasant surprises.

3 SEAMLESS DATA FLOW

Your school's data should work for you, not against you. With the Access Education Suite, information flows effortlessly between every module in your technology stack, creating a genuine single source of truth. This eliminates frustrating data silos, dramatically improves operational efficiency and enables informed decision-making across your entire school community based on accurate, real-time information.

4 BUILT-IN SUPPORT

Compliance doesn't have to be a constant worry. Every pricing bundle includes Access Policies & Procedures, providing a comprehensive suite of policies alongside the ability to upload your own documents – and see when staff have reviewed them. This ensures that your staff will remain well-informed about key policies relevant to their roles, covering crucial areas such as safeguarding, health and safety, HR policies and codes of conduct, without any additional cost or complexity.

5 FUTURE-READY AI CAPABILITIES

Prepare your school for tomorrow's challenges, today. Access Education customers gain access to next-generation AI features*, all accessible within the Access Evo platform, which are designed to streamline administrative tasks whilst maintaining complete data security. These intelligent capabilities will reduce administrative workload even further, ensuring your school stays ahead of the edtech curve.

Learn More:

The difference you can expect

By choosing the Access Education Suite, you'll experience the freedom that comes from having technology that works smarter for you.

Your operations will become more efficient and your data will provide clarity like never before.

Free up your staff's time, so they can focus on delivering world-class education, rather than wrestling with complex systems.

Move from fragmented, time-consuming administrative processes to streamlined operations with a single source of truth.

*AI features are being progressively introduced across the Access Education Suite, with full enablement planned throughout 2025 and 2026 as part of our product roadmap

access

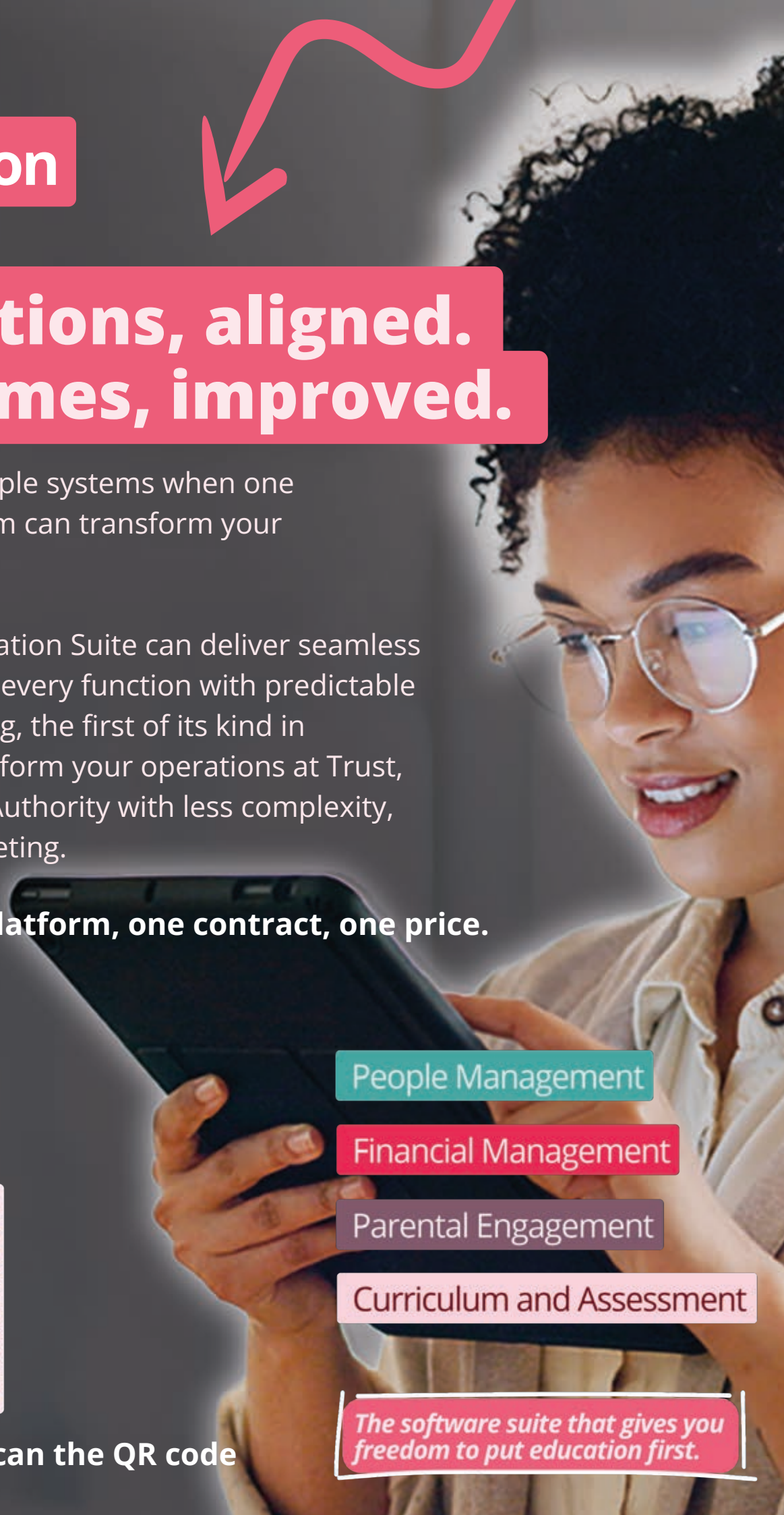
Education

Operations, aligned. Outcomes, improved.

Why juggle multiple systems when one integrated system can transform your operations?

The Access Education Suite can deliver seamless data flow across every function with predictable per-school pricing, the first of its kind in education. Transform your operations at Trust, School or Local Authority with less complexity, and better budgeting.

Discover one platform, one contract, one price.



Explore how, scan the QR code

Cracking the code

Roweena Warnakulasuriya explains how coding lessons at Wilmington Academy will see students getting hands-on with some familiar use cases...

By the time our students are taking their options at Y9, they'll have completed a KS3 Python coding project over the course of six weeks that tasks them with using their computational skills. This gives us a good sense of which students possess an aptitude for coding, and could be encouraged to choose computer science as one of their GCSE subjects.

The GCSE course begins with students being introduced to the principles of system architecture, before moving on to computer algorithms, flow charts and exploring how a computer 'thinks'

We'll then spend a whole term focusing on coding with Python, but at present, our GCSE cohorts only have one double computer science lesson per week – which doesn't give us a lot of time.

Making time

I've tried to address that by providing both our Y10 and Y11s with weekly 'intervention' sessions, to ensure they're able to cover everything. These interventions take place on Thursdays, with our Y11s having theirs before school from 8am to 8.30am, and the Y10s being offered an after-school session.

The Y10 interventions task students with tackling a series of distinct Python challenges over the course of the academic year, beginning with tasks that require inputs/outputs, before advancing to increasingly complex projects that call for 'if' statements, for-loops, and so on.

Complex fun

The Y11 interventions tend to concentrate on one or two specific exam questions and the techniques needed to pass them – or at the very least, what's needed for them to score, say three marks from a six-mark question by applying what they know as best as they can, rather than giving up completely when the question appears to be too difficult for them to answer.

Every six weeks, our student will complete a mini exam that tests their Python and general computer skills, while helping with their knowledge retention ahead of Y11. I'm happy to report that this year's Y10s have done especially well in their testing up to now.

Once they've progressed to Y11, our students will then start to apply more advanced Python coding skills and knowledge to challenges that are more complex, but also more outwardly fun.

> **"We can spot instantly if students have used AI, because the code clearly won't be theirs"**

One task I've recently set is for students to create a mock dating app, which saw them having to use functions, create a signing-in process and configure question fields using 'if' statements. The process of applying everything we've covered up to then, in terms of additional programming, to apps and contexts they recognise is something the students have really enjoyed.

Our Y11 students have been using the Gizmo app (gizmo.ai) to create their own personalised flashcards when revising specific keywords, adding the notes and explanation that are most helpful for them. We also organise regular 10-minute quizzing and learning game starter activities in class, to help them refresh their knowledge and complement their independent revision.

Managing AI

If we encounter any serious errors or misconceptions in students' work, we'll sometimes take a picture, display it in front of the class (without any details that will identify the student), discuss what's gone wrong, and how everyone can avoid making similar mistakes in future.

We assess the aforementioned 6-weekly tests using a question level analysis breakdown, so that we can quickly identify where students have struggled with their responses, and which areas we might need to revisit and try to improve on.

More recently, we've had to manage the issue of students using AI. Students are made aware of the school's AI policy at the start of the course – which effectively bars them from using AI in their work – and will receive regular reminders of this.

We can spot instantly if students have used AI, because the code clearly won't be theirs. For example, AIs will make frequent use of F functions – which we've seen students include in their work before they've been taught about them.

AI can be good for explaining how certain processes work – but we ultimately need students to use their own initiative when working on the coding activities we've set them...

ABOUT THE AUTHOR
Roweena Warnakulasuriya is computer science subject lead at Wilmington Academy in Dartford, Kent

WHOLE SCHOOL

Tech approaches and solutions that could benefit all staff and departments

THE AGENDA:

26 AHEAD OF THE GAME
Why now's the time to get your school's AI policy drawn up and implemented

29 EXPAND THEIR HORIZONS
How the Science Museum can open your students' eyes to the possibilities and rewards of technical careers

30 REIGN IT IN
The regulations and guardrails we'll need if AI is to deliver on its promises

32 URGENT UPGRADES
How many teaching hours could that ageing computer hardware be costing you? We look at how a new report has crunched the numbers...

35 PEACE OF MIND
The cybersecurity considerations that no school can afford to ignore

38 PERFECT MATCH
The ways in which one special school was able to harness the assistive potential provided by a complement of interactive displays

WHY WAIT?

Drafting an AI policy might seem daunting - but if you put it off, it's your staff and students who will miss out, says **James Saunders**...

As the head of a secondary school responsible for both the education and the wellbeing of 800 or more children – not to mention the professional development and work-life balance of their teachers and support staff – I make it my business to keep abreast of technological developments that could help with all of those responsibilities.

And as a computer science specialist who still makes time for teaching alongside my SLT commitments, it would be strange if I weren't at least a little excited by the possibilities and opportunities that could lie ahead, thanks to the increasing availability and sophistication of AI solutions.

As a serious fan of the *Terminator* franchise, however, I have to confess that when I'm thinking about AI, it's hard to get Skynet out of my head...

Mixed feelings

I suspect I'm not alone in this. When I speak to fellow school leaders about where we see artificial intelligence fitting into our practice and our organisations, the conversations tend to be pretty evenly balanced between enthusiasm and caution.

Despite the fact that we've all been happily making use of AI-driven technology for many years (hands up if you rely on Google Maps), there's something about explicitly bringing it into the education sphere, in a way that goes beyond the algorithms which make Times Tables Rock Stars and other learning apps so effective, that seems genuinely, and perhaps worryingly game-changing.

It would appear that the families and communities we serve are similarly conflicted. In August 2024, the Department for Science, Innovation and Technology published the results of a research project undertaken in partnership with the DfE, which looked into 'Public attitudes towards the use of AI in education' (see tiny.cc/ts141-AI1). The report makes for interesting reading, though it was largely overlooked by the media at the time.

For me, one of the most telling findings was that, "*While awareness of AI is relatively high, understanding does not run deep.*" The parents and children participating in the research study weren't against the use of AI in schools by any means, but they did have serious concerns about the implications of introducing it irresponsibly.

However we may feel about it, though, as Gillian Keegan said back in December 2023, '*AI is here to stay.*' At Honywood School, we know our learners are already regularly exposed to generative AI tools, and that our staff are increasingly making use of them too. Much like early adopters in

"I want our staff and learners to reap the benefits of AI as soon as possible"

other areas of the tech sphere, children and adults alike are finding their way through curiosity and experimentation.

Yet whilst those attributes are an important part of great learning, they aren't without risk – which is why I've felt the need to implement a more structured approach, through policy.

Getting in early

I can understand why some schools may be holding back on this. As soon as you put a policy in place, you are, in a way, shining a spotlight on the topic that policy covers. You're setting clear standards and expectations, against which you then can and should be held to account.

With so many unknowns surrounding the issue of AI, this may seem like an unnecessarily bold move to make right now. But the fact is, I want our staff and learners to reap the benefits of AI as soon as possible. My predecessor at Honywood took the same approach with personal computing devices; we've been issuing iPads to all learners since 2011, and our pandemic experience was considerably eased as a result.

Ignoring, or even banning ChatGPT, otter.ai and the like doesn't fit with our capitals-based curriculum vision. Instead, I want to ensure that we have adequate systems, training and guidance in place to ensure that such tools can be used appropriately, responsibly, and above all, safely.

The first iteration of Honywood's AI policy was shared with the LGB in November 2024. I produced the original draft, thinking about what I wanted to achieve. Those goals included improving teaching and learning outcomes; ensuring an ethical and legal use of AI; protection of privacy and data; utilisation of AI to reduce our staff's administrative and academic workload; and to remain at the forefront of education by integrating AI to enhance and supplement the school's mission to best support young people.

I didn't ask AI to write it for me, but I did employ the kind of approach that an AI might have used – looking for examples created by others, from which I could learn. Luckily, one of our governors works for a large trust and sent me her copy of theirs to look at.

I was also able to call on the expertise of another of our governors, Andy Wood, who works in the digital space, and whose 'SMART' advice (see panel below) was invaluable.

I have no doubt that we'll need to revise and update our AI policy frequently, in response to both technological developments and our own learning – but with a clear AI policy in place, however embryonic it may be, I'm pleased to report that it feels like the spectre of Skynet is just that little bit further away…

ABOUT THE AUTHOR
James Saunders is the headteacher at Honywood School, Coggeshall, Essex

KEEP IT S.M.A.R.T.

Andy Wood shares his advice on building a sound AI policy for schools…

- **SUPPORT LEARNING GOALS**
  Ensure that any integration of AI tools supports and enhances the school's curriculum objectives. AI should be a supplemental resource that promotes personalised learning, fosters critical thinking and enriches the educational experience, while upholding the integrity of the teaching process. Consult subject leaders to define how AI tools can complement specific subjects and learning outcomes.

- **MANAGE RISKS AND PRIVACY**
  Prioritise safeguarding by addressing the potential risks associated with AI, such as deepfakes, impersonation and misuse of AI tools. Policies should also ensure compliance with GDPR and all other data protection regulations, so as to protect the personal and sensitive information of learners and staff. Collaborate with your IT and safeguarding teams when evaluating and approving AI tools, and provide regular staff training on how to identify and mitigate AI-related risks.

- **ACT TRANSPARENTLY**
  Maintain clarity about where, when and how AI tools will be used within the school, ensuring that all stakeholders, including parents and learners, are informed. Staff should take responsibility for the quality and accuracy of any AI-generated content or feedback used in teaching or assessment. Require staff to label any AI-generated materials, and document all instances of AI usage within lesson plans and other school activities.

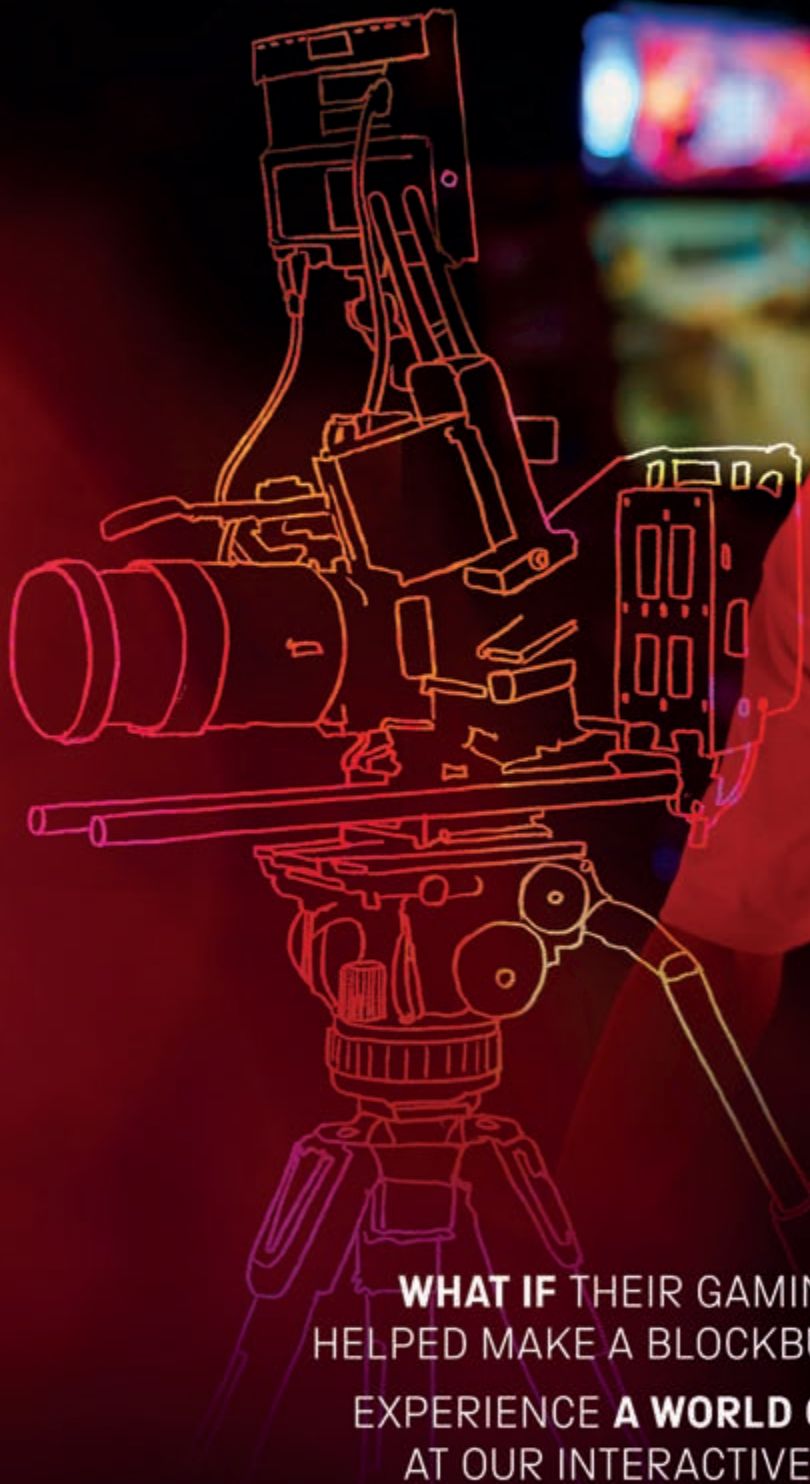
- **RESPECT ETHICAL STANDARDS**
  Emphasise the importance of ethical AI use, including active avoidance of bias, respect for intellectual property and promotion of fairness and inclusivity. Establish protocols to ensure that AI tools align with these ethical principles before being adopted. Implement periodic reviews of AI tools to identify and address any potential biases or ethical concerns, while inviting feedback from learners and staff.

- **TRAIN AND MONITOR**
  Provide staff with the necessary training and ongoing support to use AI effectively and responsibly, in a way that complements their professional expertise. Regularly monitor AI's impact on teaching, learning and administrative tasks, and adapt practices based on outcomes and feedback. Integrate AI training into personal development reviews, and plan biannual evaluations of the policy's implementation and effectiveness.

Andy Wood provides strategic leadership for one of the UK's foremost consultancy and digital service providers, and is a parent governor at Honywood School, Coggeshall, with special responsibility for ICT

SCIENCE MUSEUM

Book your trip to
sciencemuseum.org.uk/learning



WHAT IF THEIR GAMING SKILLS
HELPED MAKE A BLOCKBUSTER MOVIE?

EXPERIENCE **A WORLD OF CAREERS**
AT OUR INTERACTIVE GALLERY

TECHNICIANS

THE DAVID SAINSBURY GALLERY

Making the world go round

Helen Wickens details how the Science Museum is giving technical careers some long-overdue time in the spotlight

Whenever you flick a light switch, watch a West End show or get a test result back from the hospital, you're probably not thinking about the technicians who make those things possible. Yet without them, life in the UK would likely come to a quick stop. From laboratories and airports, to film sets and flood defences, technicians are those with the skilled hands and sharp minds who keep our society running.

Government figures show that the country needs hundreds of thousands more skilled technicians to meet future demand and the Department for Education has put technical careers at the heart of its skills strategy, championing T-Levels, apprenticeships and employer-led training – we want to ensure that young people are aware of the opportunities these roles can provide.

Tangible, exciting, accessible

It's a challenge that the Science Museum set out to tackle in 2022, with the launch of *Technicians: The David Sainsbury Gallery* funded by the Gatsby Charitable Foundation. Free to visit, and designed with young people in mind, the gallery is bursting with interactive displays, bold storytelling and hands-on activities that showcase the real lives of technicians. Via a series of interactive exhibits, students can programme a robotic arm, analyse samples using medical technologies and discover the part that technical skills play in putting on stage shows and live gigs.

The gallery gives young people the chance to see themselves in roles they might never have considered before. Too often, technical careers are seen as hidden, academic, or 'not for me'. At *Technicians*, they are tangible, exciting and accessible.

Upon entering the *Technicians* gallery, visitors are greeted by a large sculpture of a beautifully crafted kit of parts, showcasing the critical tools and equipment technicians need to do their work. As visitors move around the five areas of the gallery, the world of technicians is brought to life through large-scale illustrations featuring technicians in a wide range of workplaces.

Face-to-face workshops

Students can also touch various objects made and used by technicians – from a safety harness worn by technicians while working high up on a wind turbine, to a prosthetic leg made for a ballet dancer by engineering manufacturing technicians at Imperial College London.

The excitement of the gallery is further amplified by our free, 60-minute *Careers Uncovered* sessions, where real technicians working for major companies get to meet students face-to-face. At past sessions organised by Heathrow Airport, for example, students could discover how, every day, thousands of staff work behind the scenes to keep one of the world's busiest airports operating safely and efficiently.

Other sessions have seen the Environment Agency demonstrating the role of technicians in tackling flooding and climate change, and IBM showing students the skills that go into cutting-edge computing and artificial intelligence. For young visitors, these encounters aren't just eye-opening, but transformative. As one Y9 student previously put it to us, "*I didn't know jobs like this even existed. Now I want to find out how to get into it.*"

Tackling misconceptions

It's precisely this kind of shift that employers and educators alike are hoping for. The misconception that STEM careers are solitary or suited only to the most academic students, continues to discourage otherwise capable young people from venturing further. Yet the skills required for such roles are creative, collaborative and transferable across many different industries.

Teachers are seeing the benefits, too. Evaluations show that the gallery helps schools meet The Gatsby Good Career Guidance benchmarks, by providing students with direct employer encounters as required under the Baker Clause. For employers, it's a chance to engage with the next generation of technicians at a critical time.

At the *Technicians* gallery, young people get the chance to gain unique insights into the crucial, yet often hidden world of technical careers. They can try out essential tasks performed by technicians, and discover remarkable stories that could change their perception of STEM careers. At the Science Museum, technicians are no longer hidden. Instead, they're centre stage, showing the next generation how their skills could power the future.

ABOUT THE AUTHOR
Helen Wickens is Programme Manager (Careers) at the Science Museum; for more information, visit sciencemuseum.org.uk

Bringing AI TO HEEL

The benefits of AI for teachers will only be fully realised once schools have put appropriate regulations and safeguards in place, says **Kirsty Treherne**...

Earlier this year, as part of its AI action plan, the government pledged £1m in funding support for 16 edtech companies currently developing AI tools for use in education. Though modest in comparison with broader AI initiatives in other sectors, it was a clear indication that the government is committed to integrating AI into the work being performed by the nation's schools.

The government has claimed that AI will guarantee that, "*Every child and young person, regardless of their background, can achieve at school*" while enabling teachers to, "*focus on what they do best: teaching.*"

AI's huge potential when utilised for educational purposes may seem undeniable, but its increasing adoption raises some important questions. What can AI realistically do to support teachers, and where does it fall short? Which AI-driven tools are genuinely useful in an education context, and which should be approached with caution – especially when placed in students' hands? And crucially – how should AI be regulated so that it enhances, rather than undermines the teaching and learning experience?

AI's strengths

Even prior to the government's investment plans, we've already seen how AI tools are enhancing a education in a host of different ways. One of the most promising applications is in formative assessment and feedback. Research has shown that while high quality feedback significantly boosts student performance, teachers often struggle with the time-consuming nature of marking. AI tools, however, can cut the time teachers spend on formative assessment by up to 50%, enabling them to spend more time on teaching and engaging with students directly.

Marking aside, online platforms such as Canva Magic Studio and MagicSchool are allowing teachers to quickly create interactive lessons and appealing instructional materials. Right now, many teachers are successfully using AI to support their lesson and curriculum planning, complete administrative tasks and create lesson activities. In tandem with other technologies – such as text-to-speech and speech recognition software – AI's visual recognition functions can also be used to make lessons more inclusive, and help students with SEND access materials that might have otherwise been unavailable to them.

AI's ability to personalise learning can additionally help to keep students engaged by tailoring content to their individual learning needs and progress – though this doesn't mean that teachers should rely on it to create entire lessons from start to finish. Instead, we've learned that it can be used to support and speed up the kind of everyday processes that keep many teachers working far beyond the hours they're paid for. The automation of labour-intensive tasks can free up teachers' time, but it's just as important to always maintain teacher oversight and judgement of the processes being undertaken by AI.

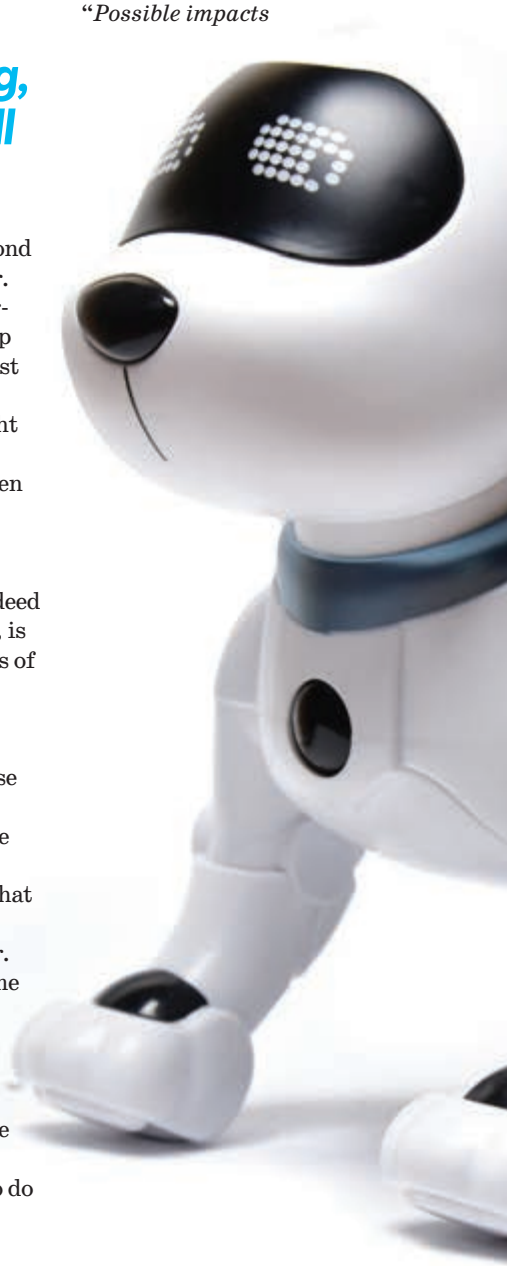
> **"Social and emotional development, critical thinking, interpersonal skills – these all require human interaction"**

The human element

What AI cannot – and indeed *should* not – do, however, is replace the human aspects of teaching. Social and emotional development, critical thinking, interpersonal skills – these all require real human interaction. If AI tools are used without careful oversight, there's a risk that teacher-student relationships could suffer.

The DfE has shared some further concerns of its own regarding the propensity for some AI platforms to serve users misinformation, and some students' growing over-reliance on AI software to do their thinking and responding for them. The ultimate goal is to encourage responsible and regulated use of AI technologies in ways that support teaching, rather than replace traditional methods.

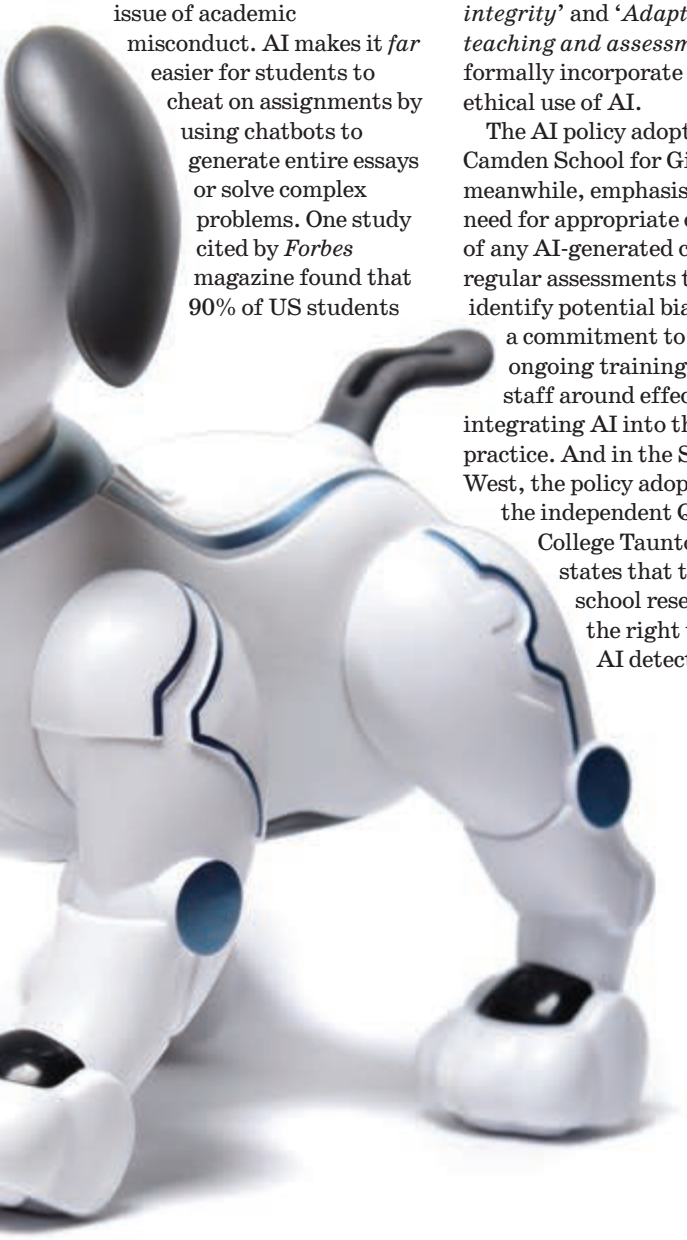
As such, we cannot ignore the accompanying risks. The government has urged schools to consider AI's "*Possible impacts*



on learning, the importance of the teacher-learner relationship and the risks of bias and misinformation." In many ways, students are becoming test subjects for a technology, the long-term implications of which still remain uncertain.

The impact of AI on children's learning and development is fast becoming a growing cause for concern. One US teacher quoted in the *New York Times*, described how their students were becoming overly reliant on AI for brainstorming and writing tasks, warning that they're, "*Losing the ability to think critically, and overcome frustration with tasks that don't come easily.*"

There's also, of course, the issue of academic misconduct. AI makes it *far* easier for students to cheat on assignments by using chatbots to generate entire essays or solve complex problems. One study cited by *Forbes* magazine found that 90% of US students are already making regular use of ChatGPT to complete homework assignments. For this reason, it's vital that schools implement software to detect plagiarism, and adopt strategies aimed at preserving students' problem-solving skills.



Context-specific policies

With a broader regulatory framework yet to emerge, some institutions have opted to introduce tailored AI policies of their own, which is a trend we can expect to see more of.

The Russell Group, for instance, has developed '5 AI principles for university education', which include '*Promoting AI literacy*', '*Upholding academic integrity*' and '*Adapting teaching and assessment*' to formally incorporate the ethical use of AI.

The AI policy adopted by Camden School for Girls, meanwhile, emphasises the need for appropriate citation of any AI-generated content, regular assessments to identify potential biases and a commitment to ongoing training for staff around effectively integrating AI into their practice. And in the South West, the policy adopted by the independent Queen's College Taunton states that the school reserves the right to use AI detection tools to discern machine-generated work from that produced by students.

Striking the balance

Regulatory elements that other schools and colleges should consider including in their own policies might include:

- Conducting risk assessments to identify potential AI misuse and mitigation strategies
- Defining appropriate uses of AI for teachers and students, including subject- or year group-specific sub-policies
- Ensuring that all AI tools used within the school are overseen by appropriate safety, filtering and monitoring features
- Reviewing homework policies to address AI-generated content and establish clear guidelines on ethical AI use
- Encouraging students to critically evaluate AI-generated outputs, with teachers providing oversight on suitable AI usage in research and learning activities
- 'AI literacy' professional development for teachers to ensure effective integration of software

AI has the potential to transform education, but its success will depend on how schools regulate and integrate it. Used wisely, it could reduce workloads and enhance learning – but without proper oversight, it risks undermining the learning of critical thinking skills and academic integrity

While some schools are taking the lead in setting AI policies, there's a pressing need for clearer national guidelines. The challenge now is to strike the right balance so that AI's benefits can be embraced, while at the same time safeguarding the fundamental role of teachers in shaping students' learning and development.

INDUSTRY REGULATION

While the UK government has stated that "*Schools and colleges are free to make their own choices about AI tools*", it has also emphasised that they must comply with existing statutory obligations, such as the 'Keeping children safe in education' guidance.

As AI adoption continues to accelerate, however, we can expect to see clearer and more structured guidelines to emerge, which will likely focus on the following areas:

1. Just as digital literacy has become a standard educational focus, AI literacy will likely be incorporated into school curricula
2. Government guidance may mandate that AI-generated content be clearly identified, similar to how schools currently require proper citation of sources
3. The sharing of sector-wide best practice on responsible use of AI in assessment, which may potentially include the mandatory adoption of AI detection tools
4. Tighter controls on how AI-powered tools store and share data
5. A further strengthening of existing safeguarding measures, including restrictions on AI use among younger students

ABOUT THE AUTHOR
Kirsty Treherne is a former headteacher and education lead at the school safety management platform iAM Compliant; for more information, visit iamcompliant.com

Beyond the FROZEN SCREEN

Time for an upgrade? We look at how a new report details the real impact of outdated school tech...

Technology now sits at the heart of teaching and learning, with teachers relying on computers for everything from marking attendance and tracking progress, to creating engaging lesson plans.

Yet many schools are caught in a technological bind. Budgets are tight, governing bodies have competing priorities and IT equipment that should have been replaced years ago is still being used, limping along from term to term.

The results are painfully familiar to anyone who's ever stood in front of a class looking at a frozen screen while 30 students gradually lose interest. And with the Windows 10 end of service deadline having now passed, the urgency of addressing these issues has only increased.

The current state of tech in UK schools

ASUS's new 'Beyond the Frozen Screen' report examines the current state of technology in UK secondary schools, based on research carried out by pollsters Perspectus Global involving 913 secondary school teachers. It looks at the challenges associated with outdated hardware and explores what teachers want from educational technology.

The research reveals that many UK secondary schools are working with relatively old computing equipment. While half of school computers, laptops and tablets are between 1 and 5 years old, a worrying 41% are 6 to 10 years old. Even more concerning, 9% of devices are over 10 years old, with 2% being more than 15 years old.

This ageing technology has real implications for teaching. Teachers report that on average, 28% of planned lessons are difficult to deliver because of limitations in their hardware. 55% say that their current IT hardware is limiting their students' learning.

> **"65% of teachers believe their students are being let down by poor IT"**

This technological gap extends beyond just the hardware itself. A concerning 58% of teachers report that their school computers are running old apps and software, creating compatibility issues with newer teaching resources and potential security risks for sensitive school data.

Windows remains the dominant operating system in schools, with 70% of teachers saying they use Windows exclusively or predominantly (20% exclusively, 50% predominantly). ChromeOS is used exclusively or predominantly by 30% of teachers (6% exclusively and 24% predominantly).

There seemed to be mixed awareness regarding the Windows 10 end of service deadline. While 59% of teachers were aware of it, 41% didn't know that upgrades and support for the operating system would cease after that date. This represented a significant knowledge gap that may have left many schools vulnerable to security issues and compatibility problems.

The impact of outdated technology

Old technology creates numerous problems for teachers. 55% report that their school computers regularly take more than five minutes to start up, while the same percentage say their computers crash or freeze at least once per week.

In other words, teachers are spending valuable classroom time waiting for slow computers to function. They report losing an average of 37 minutes of teaching time each week to dealing with technical issues. That might not sound like much, but it adds up to over 23 hours across the academic year, amounting to almost four full teaching days per teacher lost to technology problems.

The start of lessons is a critical time for setting expectations and engaging students. With some computers taking as long as five or more minutes to boot up, teachers face a choice between beginning their lessons without any digital resources, or watching as students become distracted during the wait. Neither

option contributes to effective teaching.

When asked which activities are most hampered by outdated hardware, teachers identified:

- Running multiple applications simultaneously – 53%
- Playing videos smoothly – 52%
- Using interactive whiteboard features – 41%
- Running edtech Software – 26%
- Deploying group collaboration tools – 21%
- Accessing cloud-based solutions – 18%

These technical issues translate into real teaching problems. According to teachers, outdated hardware can lead to:

- Slower lesson pace – 57%
- Increased lesson preparation time – 45%
- Reduced student engagement – 43%
- Limited availability of resources – 35%
- Restricted teaching methods – 33%
- Lower quality student outputs – 18%

That impact on student engagement is of particular concern. In an era when young people are accustomed to using responsive technology in their daily lives, the contrast with slow, unreliable school computers can make educational content seem outdated and irrelevant.

Perhaps most worryingly of all, 65% of teachers believe that their pupils are being let down by their school's IT provision.

The costs of outdated technology

Maintaining old IT equipment carries both financial and human costs. 56% of schools regularly discuss the high cost of maintaining old IT equipment at senior leadership level. This frequency clearly indicates how the issue is a drain on management time and attention that could be better directed towards other matters.

The issue affects staff morale and retention as well, with 46% of teachers believing that their school's IT has had a negative effect on staff retention. This suggests that poor technology provision isn't just an issue for students, but is also impacting on a profession already facing tough recruitment challenges.

When asked about the greatest risks to teaching at their school, teachers identified computer hardware failure (58%) as the top concern, followed by computer maintenance costs (38%), cybersecurity vulnerabilities (32%) and staff frustration and retention, due to poor and outdated hardware (24%). It's telling that hardware issues rank higher than even cybersecurity in teachers' minds.

Schools are budgeting for improvements, with the average annual budget for hardware upgrades and maintenance this year working out as £2,491. However, given the scale of the problems being reported, that figure seems insufficient to address the large backlog of outdated equipment across entire school networks.

The support side, however, presents a more positive picture. Despite their frustrations with the hardware itself, 65% of teachers believe that their school has adequate IT support in place for when devices fail. This suggests that schools have invested in technical staff, or else enlisted third-party providers, and are doing their best with limited resources.

Conclusion

This research suggests that schools recognise the need for modern technology, but that outdated equipment continues to disrupt teaching. On average, teachers lose 37 minutes per week to tech issues, adding up to over 1,300 hours annually in a typical secondary school. With 65% believing that students are being let down, the impact is being felt across the curriculum. To help close this gap, ASUS offers reliable, education-focused devices through it's BR and CR series, built to withstand everyday classroom use and empower students to learn without limits. Combined with simplified IT management, ongoing support, and durable design, ASUS solutions help schools scale seamlessly and inspire the future of learning.

BEYOND THE FROZEN SCREEN

The real impact of outdated school tech

ASUS EDUCATION

PLANNING FOR THE FUTURE

62%
of schools had planned upgrades before the Windows 10 end-of-service deadline

67%
of teachers would prioritise upgrading school hardware if more funding were available

54%
of teachers see "good user experience" as the top priority when buying new devices

54%
of teachers are most interested in interactive films as a future edtech development

8%
of schools plan to continue using Windows 10 past the end-of-service deadline

Download the full report here

5 REASONS TO TRY... Daisy Education

Find out how this provider of tried and tested learning programmes can help boost your students' outcomes in reading and maths

30 SECOND BRIEFING

Daisy Education (the new name for Reading Solutions UK) is the exclusive UK provider of DreamBox Reading Plus. We've supported over 1 million students in improving their reading fluency, vocabulary and comprehension – and now we're excited to offer DreamBox Maths.

1 SAME MISSION, FRESH IDENTITY

After more than a decade as Reading Solutions UK, we're proud to reintroduce ourselves as Daisy Education. Our new name reflects our growing role in supporting schools, including the launch of DreamBox Maths in the UK.

What hasn't changed is our commitment to personalised learning, collaborative school partnerships, and free, ongoing support—so teachers can focus on what matters most: teaching.

We support schools with trusted adaptive programmes:

- DreamBox Reading Plus – boosts fluency, vocabulary, and comprehension.
- DreamBox Maths – teaches primary level Maths, building confidence and core maths skills.

2 PERSONALISED READING SUPPORT THAT WORKS

DreamBox Reading Plus is a trusted online reading development programme that accelerates reading progress. Designed for all learners, it helps close reading gaps while stretching higher attainers through personalised learning pathways. Students access age-appropriate, ability-level texts that build fluency, comprehension, vocabulary and cultural capital across the curriculum. Teachers gain valuable insights through easy-to-use progress data and reports to inform targeted teaching.

"Students are better prepared for KS4... and believe they have the ability to do so." – Alison Smith, Ulverston Victoria High School

Daisy Education

Contact:
info@daisyeducationuk.com | daisyeducationuk.com

3 PROVEN RESULTS

DreamBox Reading Plus is an evidence-based programme and trusted by over 1,600 schools nationwide. In partnership with Derby Research School and Spencer Academies Trust, students using the programme made significantly more progress than non-users—including boys, EAL, SEND and students eligible for pupil premium. An independent evaluation from Education Alliance Finland rated the pedagogy 95% (outstanding), and we're currently participating in a trial with the Education Endowment Foundation.

4 IMPLEMENTATION SUPPORT AT EVERY STEP

At Daisy Education, we're more than a provider; we're a partner. Every school we work with receives free, ongoing guidance from our expert Customer Support Team. We offer tailored onboarding and hands-on help with implementation to ensure a smooth start. Support is available throughout your licence, whenever you need it. From free on-demand training, to clear insights into your students' progress, we're here to help you get the most from our programmes.

To keep the momentum going all year round, we also run regular national challenges and engagement initiatives to further inspire students and celebrate success.

5 THE INTERNATIONAL READING CONFERENCE

Join us for the International Reading Conference 2025 – a free, 3-day online event taking place from 10-12th June. Hosted by TV personality and education expert Baasit Siddiqui, the conference features a range of speakers, including beloved children's author Michael Rosen. Across the event, experts will explore how to:

- Cultivate a strong, whole-school reading culture
- Accelerate students' reading progress and motivation
- Use adaptive technology to support digital reading
- Promote reading for pleasure, reading for learning, and reading for life

Company Timeline

2014 – Reading Solutions UK is founded and adopted by its first school in London; Reading Plus is now implemented in over 1,600 schools.

2021 – DreamBox Learning, a leading education technology provider and pioneer of intelligent adaptive learning, finalises its acquisition of Reading Plus.

2023 – Discovery Education acquires DreamBox Learning and unveils a refreshed DreamBox Reading Plus logo the following year.

2025 – Reading Solutions UK blooms into Daisy Education – a new name offering new products, albeit with the same trusted service.

THIS WAY!

School improvement advice for headteachers and SLT

DATA RETENTION | TECHNOLOGY | SAFEGUARDING

Sort your CYBERSECURITY

LGfL's Gareth Jelley discusses the elements that ought to form the foundations of every school's cybersecurity policy

What should be the starting point for a school's cybersecurity policy?
Much of it comes down to setting expectations. A cybersecurity policy needs to set out the roles of different parties within the school and what's expected from each, before going into more detail regarding expectations around cloud services and user account standards.

The latter might include things like setting password policies that require a certain level of password complexity, mandating multi-factor authentication wherever possible, establishing the need for regular data backups, and generally defining the things everyone assumes will already be in place (while checking that they actually are).

How large should a school's technical team typically be?
This can vary significantly depending on the school's approach to technology. An average-sized secondary school will likely have between two and four people – one appointed as a network manager, and others in technical or supporting roles.

A network manager's responsibilities will include carrying out regular replacements of IT kit based on a 3- to 5-year lifecycle and overseeing the school's IT network as a whole, ensuring all devices are protected with appropriate antivirus measures, that servers are frequently backed up, and so forth.

Since network managers are less likely to be tasked with everyday troubleshooting, they should have the capacity to monitor this bigger picture, and attend to the strategic planning that will be needed if a school's cybersecurity measures are to work effectively.

What attributes should school leaders be looking for when appointing staff to those roles?
Besides obviously needing someone who's technically competent, you'll want a capable communicator with good organisational and strategic planning skills. There's nothing worse than a network manager who rarely leaves the office to talk with staff, as they'll be the last ones to discover that, for example, all staff have started using a third-party piece of software that the school's data has been exposed to.

What does best practice for logging IT management activity look like?
There should be an IT risk register to help you plan the replacement of items falling out of support. What schools can often overlook, however, is the importance of keeping good IT *asset registers to* track things like security certificates, which operating systems run on what devices and the software being used in school – crucial details for keeping your school's IT secure.

Where's the dividing line between a school's day-to-day management of their cybersecurity, and any policies/ measures set by their governance structure?
Matters of decision-making and how budgets should be allocated from available funds are largely delegated to schools themselves. Within MATs, however,there can be huge variations between smaller trusts made of several local schools and those that operate nationally with a far more centralised approach to doing things.

The latter will usually have strong core IT teams in place that essentially dictate what their schools need to be doing. They'll often invest in skilled central teams, and appoint individuals to central roles with cybersecurity oversight spanning multiple schools as one of their key responsibilities.

Schools left to manage cybersecurity matters for themselves will mainly refer to guidance passed down from the DfE. The department's Cyber Security Standards for Schools and Colleges (see tiny.cc/ts138-HT1) are now starting to drive improvements in how schools see and focus on cybersecurity issues.

Is there a core list of cybersecurity tools and measures that no school should be without?
The DfE cyber security standards is a good place to start. Among others, they mention the requirement for good backup solutions and state that schools need to have enterprise-grade antivirus solutions in place.

However, since they are standards, as opposed to regulations, it's advice schools can choose to take on board, or decide is less of a priority compared to other areas. There is, however, a clear bridge from there to issues of safeguarding – and with Ofsted as

focused as it is on safeguarding matters, that can be a major factor on school's decisions around cybersecurity.

If you're not doing enough to look after your students' data, you're not keeping them safe. Information concerning where they live, what clubs they might belong to, who their appropriate contacts are – it's going to be stored on an IT system. If that system's insecure, that's a safeguarding failure.

When deciding between and testing different security solutions, what avenues are open to schools that they might not be aware of?

When choosing products and systems, schools face the same kind of challenges that corporates do. You've got to either believe the sales pitch from the vendor, or spend time setting up, testing and reviewing the solution yourself. There are some publications out there which perform independent reviews – like *AV TEST*, which performs a monthly test of antivirus products – so you can trust what they're talking about.

There are also some tools that many schools will already have as part of an existing service subscription, but which they might not know about. Office 365 Education, for example, includes a feature that will give your school a security score out of 100, which you can improve by turning certain security settings on or off.

What are some of the main cybersecurity oversights or pitfalls that schools can overlook?

Make sure any new kit acquired by your school is properly configured and has its default passwords changed, and avoid consumer-grade devices. The latter can be seen in, for instance, the growing uptake among schools of IP-enabled doorbells for security purposes. They're cost effective and easy to use, but the products won't have been subject to rigorous security testing to check whether it's actually a good fit.

CCTV systems can present particular risks. If configured to be remotely viewable off-site, they can present an

4 STRATEGIES FOR TECH-ENABLED SAFEGUARDING

In a constantly evolving digital world, safeguarding strategies must keep pace to ensure that technology supports, rather than hinders schools' responsibility for keeping their young people safe.

The four key strategies below can help schools use technology to both enhance students' learning and strengthen their safeguarding practice.

1. Set clear policies and procedures

It takes everyone in a school to keep children safe, which is why clear safeguarding policies and procedures matter. Schools should avoid vague or confusing language in shaping safeguarding guidelines. A simple statement of a school's commitment to protect all children online can underpin everything else – including clear instructions on how teachers should report safeguarding concerns, gather key details and contact parents. This will help to ensure issues are managed confidently and consistently right across the school.

2. Establish robust systems for safeguarding support

Technology can be a powerful safeguarding tool in schools, but the systems teachers use must be set up to prevent children who may be at risk from slipping through the cracks.

Software that flags unexplained absences in real time will help teachers identify any safeguarding concerns and respond to them quickly – but if a system automatically generates alerts throughout the day when a child is off school ill, it can distract the teacher from spotting genuine issues requiring immediate attention.

3. Engage partners

When you have a child who is being bullied online it's not always easy to know how to help – But teachers aren't on their own when it comes to keeping children safe.

The relationships between schools and parents can be a firm foundation from which to start addressing issues together. With support from both home and school, it's easier to spot signs of social withdrawal, anxiety or declining academic performance that may indicate a child is struggling.

Schools concerned about cyberbullying can also partner with local charities specialising in teaching young people about online safety and mental health. School staff can then keep their focus on the safe use of tech for learning.

4. Regular training

Not every teacher has the technical knowledge and skills to keep sensitive data on young people safe. Regular training can help staff use the tools they have access to more effectively, in line with broader safeguarding policies.

Teachers need to know how to use their own mobile devices to access and share student data securely, for example. A regular course aimed at keeping their skills up-to-date could help them work more efficiently, without putting sensitive data at risk. The right CPD will give teachers more confidence to explore the exciting digital tools available to enhance their teaching.

The Bottom Line

Safeguarding and technology are deeply interconnected. By keeping strategies straightforward and focused, you can help to ensure that technology enhances your school's safeguarding mission.

Matt Tiplin is a former school senior leader and Ofsted inspector, and currently VP of ONVU Learning; find out more at onvulearning.com

easy way for attackers to access your school's camera feed and network. If the device or system is procured from outside of an IT department's oversight, this can be missed – until the IT department has to deal with the subsequent fallout. It's important to adopt a joined-up approach, whereby key individuals will regularly meet before procurement processes even start.

What are the most salient cybersecurity issues at the moment that schools ought to be aware of?

The biggest threat remains phishing emails. Everybody's familiar with those these days, but they're still a surprisingly easy way of gaining access to secure systems. They'll often go hand in hand with other vulnerabilities, so that if someone can be prompted to click on to a webpage and enter their school email address and password, and have a remote desktop environment set up, you've effectively given away that account login for remote access.

Setting up multi-factor authentication within a school environment can present challenges, but will provide an important line of defence against that kind of easy access into your network.

Something else we see quite regularly, but which gets comparatively little press, is financial fraud. Keeping in mind those phishing emails, this will often come down to a compromised account belonging to a headteacher or school business manager. The fraud occurs when emails are sent on their behalf, requesting transfers of funds or belated invoice payments. Since finance staff are responding to emails from a seemingly legitimate sender, those payments can, and will be transferred immediately.

Guarding against this might involve implementing more secure financial processes so that any changes of bank details will be checked, or alerts issued if something doesn't quite look right. Adopting an open policy or ethos across the school can empower junior colleagues to pick up the phone and check whether a senior colleague genuinely gave the relevant instructions.

What approaches to training staff in cybersecurity matters would you recommend?

That's something many schools can work on using existing product licences. LGfL makes Sophos Phish Threat available to schools, which includes simulated phishing emails and training. Users can generate reports on who's clicked through after how long, how much of their details they entered, and so on, which can definitely help to raise awareness.

> *"If you're not doing enough to look after your students' data, you're not keeping them safe"*

One new area now addressed by the DfE standards is including students in cybersecurity awareness sessions as well, since they too will have accounts on your network. The risk of them clicking on something they shouldn't when using a school device is really no different to that of a teacher doing the same thing. Once attackers establish that initial foothold, they can traverse laterally to servers and other devices.

What's critical is securing time from SLT that can be dedicated to cybersecurity awareness, and for there to be a 'drip feed' of cybersecurity awareness throughout the academic year. That drip feed, combined with simulated phishing emails, is a great way of improving cyber awareness.

Gareth Jelley is Product Security Manager at LGfL – The National Grid for Learning; for more information, visit lgfl.net

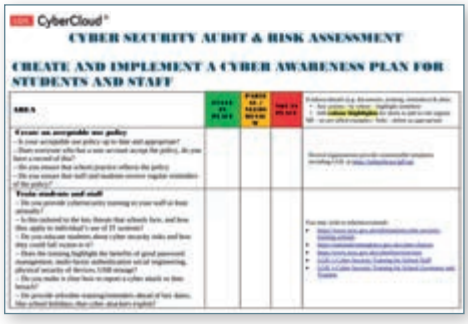
THE ELEVATE CYBER SECURITY TOOLKIT FOR SCHOOLS

Schools keen to start developing or renewing their cybersecurity policies will find a range of useful documents and templates within the LGfL-produced Elevate Cyber Security Toolkit for Schools.

Its roots lie in a joint audit carried out by the National Centre for Cyber Security and LGfL back in 2019, which found that while many schools did have technical safeguards in place, they tended to lack essential documentation and planning processes. Fewer than half of those schools surveyed had documented their core IT services, or prepared a full contingency plan for potential cyberattacks.

The resulting resource is free to download, and intended to help schools respond to the DfE's latest Cyber Security Standards for Schools and Colleges. Its contents include a self-led cybersecurity audit template that schools can use to evaluate their existing cybersecurity provision and identify any strengths and weaknesses, as well as further templates for drawing up a cybersecurity policy, incident response plan and risk reporting system, presented using language that doesn't assume specialist cybersecurity knowledge on the part of teachers

There is also an example risk register, asset register and software register, all saved as fully editable xlsx files. To find out more and to download the materials, visit **elevate.lgfl.net**


CyberCloud

CYBER SECURITY AUDIT & RISK ASSESSMENT

CREATE AND IMPLEMENT A CYBER AWARENESS PLAN FOR STUDENTS AND STAFF

FROM 6 TO 36

We hear how one SEND school is growing rapidly in size and provision, with the help of some smart inclusive edtech...

It's not every day that a school multiplies its student body sixfold in just over a year – but then Rainbow Hub School in Mawdesley, Lancashire is no ordinary school.

When the charity-run, independent SEND school first opened its doors, there were only six students on roll. Rainbow Hub was already growing rapidly, however – primarily serving young students with complex neurological conditions, including cerebral palsy, cystic fibrosis, multiple sclerosis and Moebius syndrome.

Many of the students currently attending Rainbow Hub are non-verbal and/or wheelchair users. Some require alternative input devices and various other forms of assistive technology in class. Each student receives individualised, bespoke education to meet their specific physical, emotional and cognitive needs.

Multisensory experiences

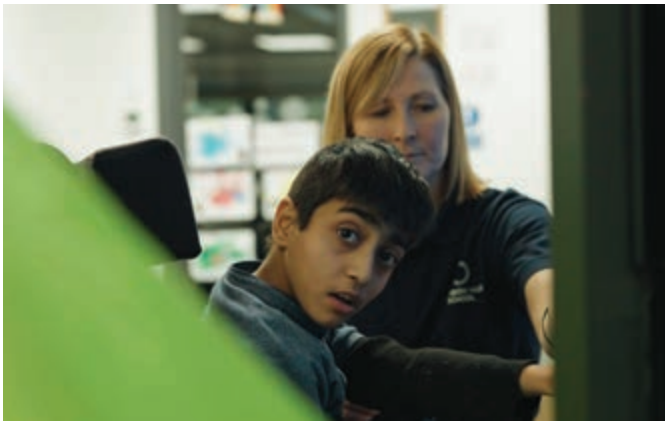
This means that each student receives a great deal of attention, which presents issues for the school's determination to take on more students. How can that one-to-one delivery be sustained, while still giving all students an education that serves their needs – or better yet, while further increasing their engagement levels in class?

There was also another pressing issue – the need for the school to continuously raise funds in order to support its operations.

"*Rainbow Hub is reliant on donations,*" says Lyndsay Fahey, the school's CEO. "*We need to raise £700,000 every year, just to keep our charitable services running, and we rely heavily on the support of others.*"

That said, Rainbow Hub has recently moved into a new facility, giving staff the opportunity to rethink their educational approach in the classroom, and consider whether there might be a solution to their dilemma. An answer came in the form of an edtech provider that had already been supporting them for years – ViewSonic. The company had previously donated equipment to the school and assisted with fundraising, including sponsored 5k/10k runs.

It soon became apparent that ViewSonic's ViewBoard interactive display could provide Rainbow Hub's students with multisensory interactive experiences that would let them express themselves more freely, and learn through a host of new auditory, visual and tactile ways. Teachers would also have the flexibility to display engaging, dynamic content to whole classes more easily and consistently, without having to always rely on separate devices.



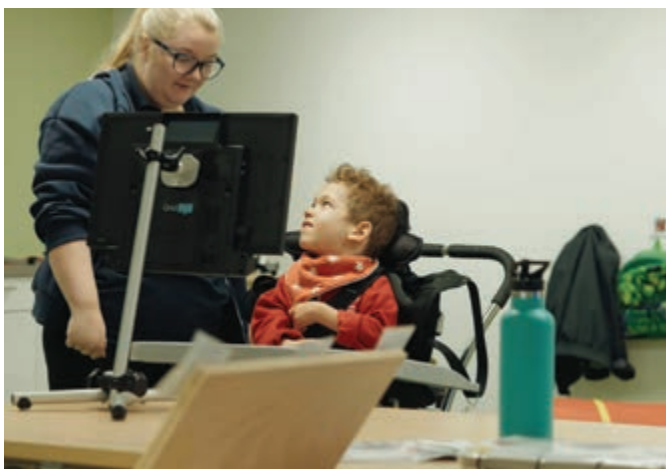
Unprompted use

With this increased inclusivity in mind, ViewSonic went about designing a custom solution that included the installation of 65-inch ViewBoards in every classroom, each set up on height-adjustable stands with anti-collision detection for added safety.

The displays were all configured with built-in accessibility tools, an IWB function for teachers and original learning content to save teachers time on lesson planning, thus freeing them up to dedicate more time to scaffolded learning goals tailored to each student. The ViewBoards also work with the school's specialised hardware, such as switches, that students use in class to communicate – a must for the school.

"*The accessibility of the ViewBoard and its adjustable stand allows our students with disabilities to access it easily,*" says Rainbow Hub's headteacher, Martyn Berry. "*It's a great piece of kit.*"

With the new height-adjustable boards in place, teachers reported that non-verbal students began using the displays unprompted to express their preferences and level of



understanding. As well as the motorised mounts that met learners where they were, the boards also included 'fine touch' technology in their displays, of the kind that made it easier for learners with limited motor skills to draw, select objects and interact with the board in class, at a level of precision.

Some students at the school have compromised immune systems. The boards' antimicrobial screen surfaces are therefore a useful hygiene feature, both at Rainbow Hub and indeed for all other schools and public environments.

Opening up new avenues

To ensure yet more safety, the cable clutter around the boards has been kept to a minimum by equipping each unit with a dedicated slot-in PC. This means that teachers can avoid having to connect their own PC to the board – via an HDMI cable, for example – at the start of each lesson and risk creating a potential trip hazard. Instead, they can simply use the built-in PC already plugged into the side of the board, or else cast content from their laptop or mobile device to the board wirelessly.

Each board moreover has its own dedicated WiFi module, meaning that there's no longer need for schools to keep wireless routers in every classroom, with yet more cables to have to worry about.

Following their installation, the boards soon began to open up new avenues for interaction among staff and students alike. With their lessons having become more interactive and visual than before, learners at the school with profound physical and communication challenges have finally been able to take a fuller, more active part in classroom life, supported by tools that recognise their individual strengths and learning preferences.

Yet before the students could get used to the boards, the school's teachers and volunteers needed to become comfortable with using them first. What they received wasn't just a demo, however, but rather fully-fledged, in-person training grounded in real-world teaching scenarios.

These sessions covered the kinds of situations that teachers could actually expect to run into during classes, rather than dry demonstrations of simply how to log in, or save their whiteboard files.

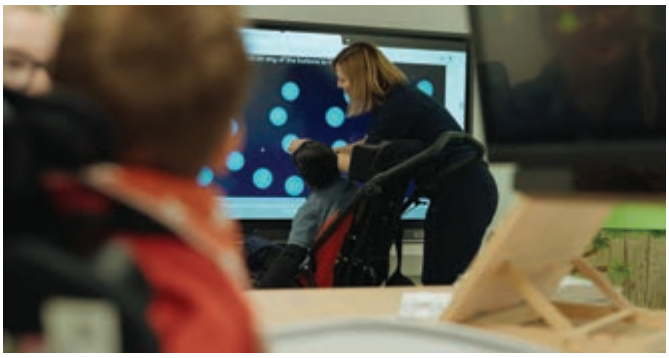
Teachers and volunteers received practical, hands-on training on how to integrate the boards' interactive tools into daily classroom activities. The teachers also quickly gained confidence in importing images and videos into myViewBoard interactive whiteboard scenes, and with casting content from their mobile devices.

Ebb and flow

This approach worked. Rainbow Hub teachers found that they were now equipped to offer differentiated learning with the boards, while the volunteers could be more effective at both the learning and therapy sessions they deliver to the students.

Some teachers even become champions for the boards internally, helping others to learn about and use the boards themselves in lessons, creating a positive feedback loop. "*It wasn't just training on the tool,*" says Berry. "*It's changed the way we can deliver lessons and include every child in the classroom.*"

This happened in no small part because the boards themselves let the teachers record their lessons and document the ebb and flow of their classroom delivery. These lesson recordings could then be turned into reusable resources for helping teachers improve their own practice by spotting areas for improvement, as well as supporting the onboarding of new teachers, therapists and LAs. Instead of simply 'coping' with students' needs, the newly empowered school staff are now co-creating in an entirely new and proactive way.



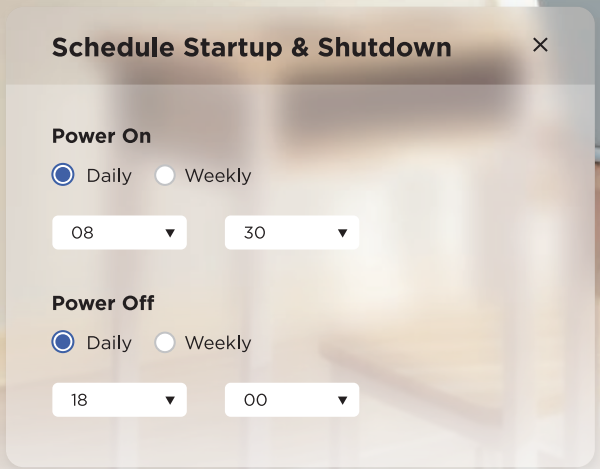
"It helped us rethink how to teach inclusively"

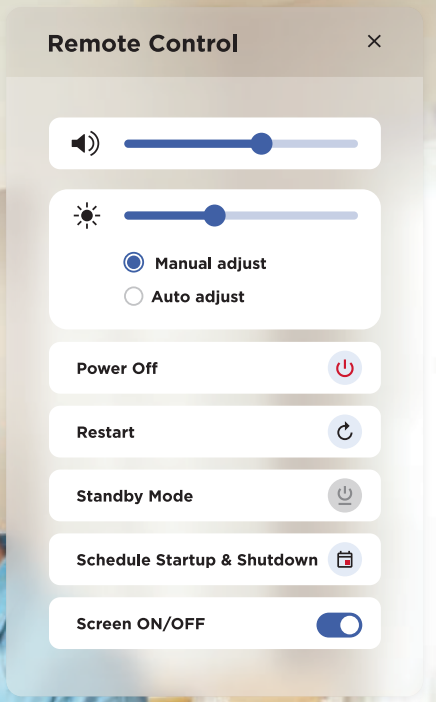
Beyond improvements to learning and pedagogical outcomes, the solution was always intended from the outset to help the school in its wider fundraising efforts. "*We plan to use [the boards] so that visitors can have an oversight of the children they're helping,*" says Emma Parish, Rainbow Hub's corporate relations and event manager. The boards thus occupy pride of place during various school-hosted events, ranging from assemblies to fundraising presentations, as well as during internal training sessions.

Throughout the implementation phase, the school found that its teachers were better equipped to teach students than ever before. Soon after, it began taking on more staff and students, increasing enrolment from six to 36 students – a sixfold increase in a very short amount of time.

"*The future of Rainbow Hub School is exciting,*" says Berry. "*It will enhance the wonderful journey that our pupils will experience, but it's the personalised communication needs, that makes the school so special.*"

ViewSonic® | Education





Smarter Control, Greener Classrooms

Pairing your ViewBoard interactive displays and digital displays with ViewSonic Manager® gives school administrators centralized control, simple IT management, and a smarter, greener campus experience.

Set it and Forget It

Save valuable IT time with automated scheduling.Easily set on/off times to keep every classroom ready for teaching, and reduce energy waste.

www.viewsonic.com/uk/education/

TECH IN ACTION

An Island-wide Education Transformation

Exploring how ViewSonic helped modernise 330+ classrooms across 19 schools, creating a consistent, future-ready digital ecosystem

MODERNISING AN ISLAND'S CLASSROOMS

Across 19 schools, the limited interactivity of outdated AV tools were leaving teachers frustrated. The States of Guernsey set out to not just replace the equipment, but to build a new, future-ready digital ecosystem. With support from leadership, the vision was to give every school equal access to interactive technology that could empower teaching and learning. Partnering with ViewSonic, the project established a consistent, island-wide environment that lay the groundwork for a cultural change in the way lessons were delivered.

HOW TEACHERS GOT ONBOARD

Guernsey deployed over 500 ViewSonic ViewBoard interactive displays. These were supported by the deployment of myViewBoard digital whiteboarding software, designed to encourage active learning, improve inclusivity and reduce teacher workload. The centralised device management platform, Manager Advanced, served to further enhance IT efficiency.

The training provided was entirely driven by pedagogy, with staff receiving CPD workshops, online resources and peer mentoring to build confidence from day one. Teachers were also given preparation in how to mentor colleagues and sustain a culture of digital practice. The teachers valued the flexibility of being able to use their ViewBoards as connected displays, standalone Android systems or collaborative hubs with the aid of myViewBoard. Seamless integration with Google Classroom kept disruptions to a minimum, while local champions in each school helped to maintain momentum and embed the technology in daily lessons.

THE IMPACT SO FAR

Headteachers described the rollout as 'revolutionary.' From the very start, staff and students engaged naturally with the new displays. Lessons became more interactive, with pupils moving from passive listening to active participation. Even quieter students began contributing more confidently. Supported by ongoing CPD and peer mentoring, the teachers were able to develop new approaches while simultaneously strengthening their digital confidence. IT teams also benefited, using remote management to save time and reduce operational costs.

Beyond classrooms, the displays now support staff meetings, student showcases and parents' events, reinforcing inclusivity and strengthening schools' role within the wider community. Watch the full case study video via tinyurl.com/ti12-VS1.

Did we mention?

The rollout progressed smoothly. From the very first day, teachers and students began using the new displays with ease, in ways that demonstrated strong engagement. Hands-on CPD, online resources and in-school champions helped staff build confidence quickly and sustain momentum. With their familiar Google workflows still in place, teachers could move seamlessly between using the boards for casting, annotating and collaborating. Together, these elements fostered a lasting culture of peer-to-peer enabled digital practice that has made daily lessons more engaging and collaborative.

Contact:
uk.marketing@viewsonic.com
viewsonic.com/uk

THE PLACE:

Guernsey's education system covers primary, secondary and special schools. An island-wide initiative ensured every school could benefit equally, creating a consistent and modern digital learning environment.

THE CHALLENGE:

Outdated interactive boards, limited student engagement and teacher confidence. Leaders needed a scalable, future-ready solution that supported pedagogy and delivered sustainable value across the island's schools.

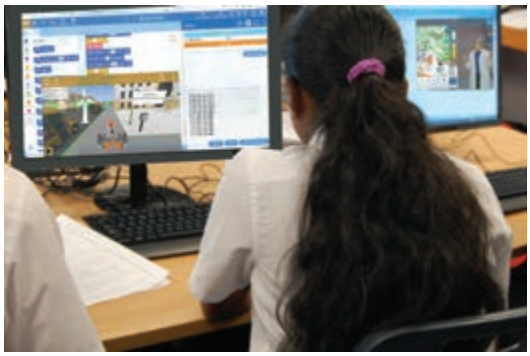
What's New?

Our pick of the latest solutions and innovations for secondary education

1 Computing with confidence

Apps for Good offers free, introductory computing courses that empower students with the skills to shape their futures through technology. Designed for both computing and non-specialist teachers, courses are mapped to KS3 curricula and provide teachers with the tools to deliver high-quality computing with confidence, in class or enrichment time.

Student teams design app prototypes addressing real-world challenges that matter to them and their communities. With three themes to choose from, all courses have opportunities embedded for industry engagement, entry to our national Showcase and a focus on developing core computing knowledge and essential skills. For more details, visit **appsforgood.org**



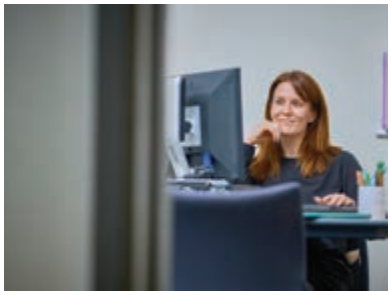
2 Climate coding

Kickstart careers and green-tech confidence with FREE computing lessons from Get with the Program and Bupa!

Empower 11- to 14-year-olds to tackle climate change in our Net Zero Coding Adventure, coding a virtual rover and interpreting environmental data to code a path to net zero. With a dynamic, 15-minute pre-filmed show and interactive online activities, this curriculum-aligned experience delivers high-octane (and low-carbon) learning. And the best part? It's completely free during the Bupa Coding Day Series – available November 2025, and again in March, June/July and November 2026.

Head to **www.getwiththeprogram.org.uk/bupa** today, and register to inspire the tech innovators of the future!

3 CPD at scale



Hachette Learning Academy is a growing suite of interactive online CPD courses powered by adaptive technology, designed to replicate the benefits of one-to-one teaching at scale. Teachers can fit their learning around their existing work commitments, learning at their own pace and taking control of their professional growth and career progression.

Developed in partnership with adaptive learning innovators Area9 Lyceum, the Academy was launched in Spring 2025 with a foundation of five courses tackling core teaching competencies. The online resources grew in September 2025 with seven new courses on supporting EAL students, wellbeing for students and teachers, and inquiry-based learning. Find out more at **hachettelearning.com/academy**

4 Get animated

HUE Animation Studio Pro combines the award-winning HUE HD Pro visualiser with everything you need to create your own stop-motion animation videos. Making films using timeless techniques such as claymation, puppet/model animation or pixilation (animating real people) is a fun, educational pastime that can be enjoyed by kids and hobbyists of all ages.

With its 1080p Full HD resolution, the HUE HD Pro can also double up as a classroom visualiser for use with interactive TVs, smartboards and built-in video apps, such the Windows' Camera app, or macOS' QuickTime. For more information, visit **huehd.com/pro-animation**

5 AI-assisted coaching and reflection

Overcome barriers of time, location, and capacity to achieve sustainable improvements in teaching. Deliver adaptive instructional coaching, guided self-reflection and seamless collaboration across schools.

Harness Adaptive Development Pathways, Practical Technique Guides, Classroom Video Observation and AI-driven Lesson Insights to put every EEF-recommended PD mechanism into practice.

Always under teachers' control, and fully customisable, IRIS Connect lets you create personalised learning journeys, align resources with your school's language and frameworks, and tailor AI analysis to your specific goals.

For more information, visit **irisconnect.com/uk**

6 Computer science for all

The Raspberry Pi Foundation is a global charity with a mission to enable young people to realise their potential through the power of computing and digital technologies. We engage millions of young people worldwide in learning computing and digital making skills through a thriving network of clubs and events.

This includes running Code Club – a network of free computing clubs for young people. We enable any school to offer students the opportunity to study computer science. We do this by providing the best possible curriculum, free resources and training for teachers. Learn more at **raspberrypi.org/teach**

7 Unleash your tech talent

Tech She Can is the tech careers inspiration charity dedicated to inspiring the next generation of tech talent. We create and deliver free, engaging, and inclusive resources for children, teachers and parents, aiming to spark interest in tech careers from an early age.

Our mission is simple, but powerful – we want to help build a future where *everyone* has the opportunity to participate in developing technology. For more details, visit **techshecan.org**

8 Empowering Smarter Teaching

At the heart of today's digital learning, ViewSonic provides more than technology – it delivers a comprehensive ecosystem. From ViewBoard interactive displays and myViewBoard digital whiteboarding software, to ViewSonic Manager centralised device management platform, its solutions help teachers save time, reduce workload and create inclusive, engaging classrooms, while also encouraging students to take a more active role in learning. Designed with simplicity, sustainability and accessibility in mind, ViewSonic Education Ecosystem adapts to every school's needs and grows with them over time. Trusted in over 30 countries and backed by more than 35 years of expertise, ViewSonic delivers long-term value to schools through its innovative EdTech solutions. Learn more at **viewsonic.com/uk**

4Matrix®
Performance Tools for Schools and Trusts

9 All-round insights

4Matrix is provided by New Media Learning Ltd – the UK's largest independent data solutions provider to secondary schools. 4Matrix offers a powerful suite of tools to help schools and trusts obtain maximum value from their performance data. Key features include intuitive dashboards, interactive charts and tables, pupil photo reports and seamless MIS integration. Analyse, compare, forecast and report on subject performance, the progress made by different groups of pupils, the consistency and impact of teaching, and key performance indicators.

With 4Matrix, schools gain the insight needed to drive improvement and make informed, data-led decisions. For more details, visit **4matrix.com**

10 Stress-free transitions

Sumdog is a game-based educational platform that helps students of all abilities master maths through fun, interactive and curriculum-aligned practice. By personalising questions to each learner's level, Sumdog builds confidence, boosts fluency and reinforces key skills in an inclusive and motivating environment. Whether you're supporting intervention strategies, or are looking to make maths more enjoyable, Sumdog can adapt to individual needs, making it an ideal tool for differentiated learning. It can serve as an effective catch-up resource for KS3 students – helping them revisit and solidify essential KS2 concepts in a playful, stress-free way – and is therefore perfect for easing the transition between primary and secondary education. For more information, visit **learn.sumdog.com**

ASK THE EXPERT

"It's no longer a niche"

Richard Clutterbuck explains why the adoption of AI tech within schools shouldn't be seen as a threat, but as an opportunity to change things for the better

What's your response to those who argue that AI technology is just a passing fad?

We're always seeing new technologies fail to live up to their hype, so it's understandable some people see the obsession with AI as a passing fad. But AI is already having a dramatic impact across industries – whether it's streaming platforms recommending TV shows based on what you like to watch, or automation of admin tasks. AI isn't just a new solution; it's fundamentally a new way of working with computers.

Should schools be worried about the possibility of AI systems acting in biased or unfair ways?

It's true that AI can make biased decisions. If an AI model is designed to mimic the decisions of biased humans, then it will reflect those biases in the decisions it makes. Choosing systems that are carefully designed and vetted, inputting high quality data and incorporating human intervention can minimise unfair bias.

What would you say to schools concerned about the prospect of sensitive data being shared with AI models?

Since AI depends on our data to deliver its responses and learn over time, it's understandable that teachers and staff are concerned about how secure their sensitive data is when working with AI. Thankfully, there are plenty of regulations requiring companies to use data in a responsible manner, such as GDPR. At Bromcom, we take the matter of protecting your data very seriously. If, for example, you run any queries on your MIS data, that data will be kept confidential and secure within the Bromcom cloud network.

EXPERT PROFILE

NAME:
Richard Clutterbuck

JOB TITLE:
Head of Strategic Relations at Bromcom

AREA OF EXPERTISE:
Leadership, teaching and learning pedagogy, curriculum design and AI

BEST PART OF MY JOB:
Working with schools and MATs to help them use Bromcom to get better outcomes for their young people

Won't it just be larger schools and MATs that can actually afford AI?

AI is no longer an expensive, niche technology reserved only for those companies with the funds to invest in it. There's a huge range of AI tools available at a range of prices – including free ones, like ChatGPT! As AI models have become more commoditised and better optimised, they've also become cheaper and more effective. Plenty of educators now use technologies like Bromcom AI daily, to save themselves time and then dedicate more of that time to their students.

Should anyone currently working in a school be worried about AI taking their job?

Many people assume that AI will mainly be used by companies as a cheap replacement for human workers. While it's true that AI can carry out *some* activities – like data entry and sorting tasks – more quickly and cheaply than humans, most jobs entail cognitive tasks that humans are better at. Like all technological breakthroughs, AI may unfortunately make some jobs redundant, but it should also allow industries to flourish and unlock new employment opportunities. What this means for education, we don't yet know.

ASK ME ABOUT

BROMCOM'S AI IN EDUCATION WEBINARS – How the webinar series we're hosting can help you discover how AI can transform your school and implement AI tools with confidence

BROMCOM MIS – How our fully featured, cloud-based MIS can benefit your establishment and why 4000+ schools have chosen to switch to Bromcom

BROMCOM AI – How our advanced AI functionality can have a positive impact on your workflow and school life through intelligent data analytics, predictive analytics, automated reporting and streamlined communication – find out more at bromcom.com

ADMINISTRATION

Advice on the policies, approaches and projects that can help your school operate more smoothly

THE AGENDA:

46 ALTERNATIVE ROUTES
Public sector frameworks can be a big help during the procurement process – but they can also be a hindrance, too...

48 FROM DEEPMIND TO DEEP FAKES
If you're concerned at the prospect of teaching Y7s the essentials of using AI responsibly, Mac Bowley has few words of advice...

52 SAFELY UNDER LOCK AND KEY
Why data security should be a deeply embedded element of the daily routine for all members of staff

56 STAY VIGILANT
Yes, device management and maintenance can be time-consuming – but considering how quickly small oversights can escalate into huge problems, it's an area you can't afford to ignore...

BUYER BEWARE

Rich Newsome highlights the hidden risks of public sector frameworks in education procurement

Public sector frameworks are often seen as a shortcut for schools, academies, and trusts. They promise an easier way of buying software and services that cuts down on paperwork, while providing a sense of reassurance that suppliers are pre-approved and compliant. On the surface, that sounds ideal.

But as many school leaders are discovering, frameworks aren't always as straightforward as they seem. Some come with restrictive terms, hidden risks and unintended consequences that can leave schools worse off. In fact, relying too heavily on frameworks can sometimes limit choice, push up costs and even compromise fairness in procurement.

Here, we'll explore the benefits and perils of public sector frameworks in education. We'll look at why some frameworks work well, why others don't, and at what schools should watch out for before committing to one route.

Why schools turn to frameworks

It's easy to see the appeal of frameworks. Procurement can be time-consuming and resource-heavy, especially if you're leading a large MAT with multiple schools to support. Writing a full tender document, evaluating suppliers and running a formal process takes time and expertise that many schools simply don't have.

Frameworks promise to make life easier. They're marketed as ready-made, compliant routes to procurement that give you access to a pool of vetted suppliers. They also provide a level of comfort; if a supplier is on a framework, they must have met certain standards, right?

In some cases, frameworks really do help. Crown Commercial Service's G-Cloud, for instance, provides a centralised marketplace for cloud-based services. It makes it easier for schools and other public sector organisations to compare suppliers, understand pricing and avoid lengthy negotiations. For straightforward software needs, frameworks like G-Cloud can save time and reduce complexity.

Where frameworks fall short

The challenge is that not all frameworks are created equal. While some are designed with fairness and balance in mind, others can include terms that place disproportionate risk on suppliers. When that happens, many providers may choose not to participate. And when suppliers walk away, schools are the ones who lose out.

Take Everything ICT as an example. On paper, it looks like a simple, broad procurement route. But in practice, the contractual obligations are far more restrictive than most suppliers would usually accept. These include:

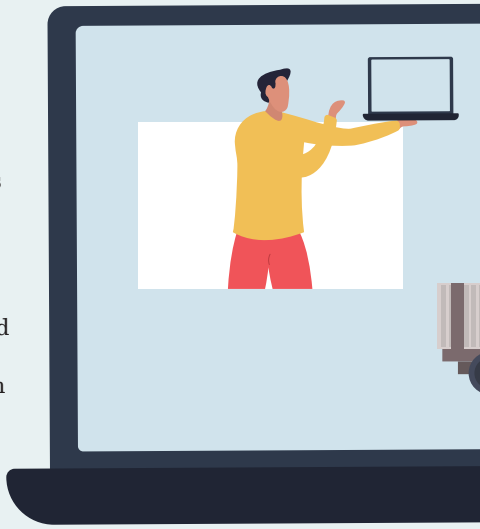
- **Broad and potentially uncapped indemnities** that go well beyond standard risk-sharing
- **Annual liability caps** that can exceed typical contractual limits
- **Perpetual IP licensing rights** granted to customers, extending beyond normal usage
- **Escrow requirements** (where suppliers cover setup and storage costs)
- **Step-in rights** that allow the customer to take over delivery at the supplier's expense

> *"Don't assume that a framework is automatically the 'best' or 'only' route"*

This might all sound highly technical, but the implications are simple – many reputable providers won't sign up to terms like these. The result? Schools limiting themselves to a smaller pool of suppliers, without even realising it.

A good illustration of this came from a local authority in Cardiff. They'd got a considerable way through a framework procurement exercise for a school MIS and finance via Everything ICT, only to face a challenge from the incumbent supplier, which wasn't on the framework because of the framework's restrictive terms and conditions.

The authority eventually had to restart the process, and eventually went through the Kent County Council (KCC) framework instead. That shift effectively ruled out both Access Education and Compass – even though both were bidding, initially – and limited the final options available to the authority's schools.



What this means for schools and trusts

The danger of restrictive frameworks isn't just theoretical. It has real consequences for schools and trusts, the first being reduced choice: If suppliers opt out, schools miss out on solutions that might have otherwise been a better fit for their needs.

Restrictive frameworks also limit competition, since

with fewer providers in the mix, there will be less pressure on rival providers to compete on pricing and innovation. A framework that only accepts a narrow set of suppliers can't deliver genuine fairness in procurement, and besides – just because a framework is 'approved', that doesn't necessarily mean it's the best route, or even the most cost-effective option.

In some instances, schools may think they're saving time by using a framework, when in fact they're cutting themselves off from potential partners who could well deliver more value and better outcomes.

Alternatives and better practices

None of this is to say that frameworks should be written off altogether – far from it. When they're structured fairly, frameworks can indeed be a useful tool.

Alongside G-Cloud, other frameworks like YPO and ECS seek to give schools a fairer balance of terms and have been widely adopted. These frameworks encourage more suppliers to participate, which means schools still get the benefits of choice, competition and innovation.

Sometimes, though, the best option can be to step outside of frameworks and run your own procurement process instead. Writing a tender may take more effort upfront, but it gives you full control over what you're asking for, how you evaluate suppliers and what outcomes you prioritise. It also helps you avoid hidden pitfalls that might be baked into framework terms (see panel).

The bigger picture

Public sector frameworks exist for good reasons. They're meant to make procurement easier, reduce risk and deliver value for money, but the reality is more complicated. Some frameworks deliver on that promise. Others, because of restrictive terms, end up doing the opposite.

For schools, the key is awareness. Don't assume that a framework is automatically the 'best' or 'only' route. Take the time to understand how it works, the terms that suppliers are being asked to sign up for, and whether those terms are discouraging good providers from taking part.

Frameworks can be part of the solution, but they're not a silver bullet. By weighing up the benefits and challenges of each, and by being thoughtful about when to use a framework and when to run your own process, schools can make procurement decisions that will truly serve their long-term goals.

Conclusion

Frameworks can save time and offer reassurance, but can also restrict choice and fairness if not designed well. The peril lies in relying on them blindly.

Schools, academies and trusts deserve procurement processes that will give them genuine choice, real value and solutions that meet their needs – not processes that unintentionally close doors.

So, before you commit to a framework, ask the hard questions, explore the alternatives and always remember – the best procurement decisions are made when schools go in with eyes wide open.

TENDERING TIPS

If you opt to go down the tender route, there are a few golden rules worth remembering:

1. **Set clear goals**
   Don't just list features – explain the outcomes you want to achieve, whether that's improving teacher retention, saving money for reinvestment or boosting visibility at trust level.
2. **Engage suppliers early**
   'Cold tenders', where there's been no prior conversation, often result in weaker responses. Talking to suppliers ahead of time helps both sides understand if the partnership will work.
3. **Be open about budget**
   Sharing a realistic figure will help suppliers shape solutions that maximise value within your financial scope.
4. **Provide context, not just checkboxes**
   Avoid spreadsheets of 'yes/no' questions. Instead, share narrative detail about your needs and challenges.

By following these steps, you will give suppliers a better chance to respond in a way that aligns with your goals, and you will get better results in return.

ABOUT THE AUTHOR
Rich Newsome is Content Manager at Access Education; with a professional background in teaching, he brings firsthand experience of the challenges and opportunities within schools. His work focuses on addressing key issues in education by providing clear, accessible content that supports educators and school leaders

LESSONS IN AI

Mac Bowley looks at what teachers can do to help young people safely navigate online spaces in a post-AI world

Artificial intelligence is no longer a distant concept. It's already reshaping how we live, work and learn. For today's young people, understanding how to use AI tools responsibly is crucial. As these tools become more common in schools, homes and workplaces, the need for thoughtful, well-supported education around their safe and ethical use will be more important than ever.

AI literacy isn't just about understanding the technology; it's about equipping learners to critically reflect on the role of AI technologies in society, how they're used, what they're capable of and where the risks lie. In other words, it's about teaching AI safety.

Essential conversations

The UK AI Safety Institute defines 'AI safety' as, "*The understanding, prevention and mitigation of harms from AI. These harms could be deliberate or accidental; caused to individuals, groups, organisations, nations or globally; and of many types, including but not limited to physical, psychological, social, or economic harms.*"

In response to this growing need, we created Experience AI – a free programme co-developed with Google DeepMind to support secondary school teachers in delivering high-quality AI education to students aged 11 to 14.

This year we've added a new 'AI safety' module that introduces students to some of the key challenges posed by AI systems – such as the spreading of misinformation, risks to data privacy and the ethics of responsible use – while equipping educators with everything they need to lead rich and relevant discussions.

Whether you're a computing specialist, or simply looking to support digital resilience in your subject area, the AI safety resources – and Experience AI more broadly – aim to make it easier for you to bring these essential conversations into the classroom.

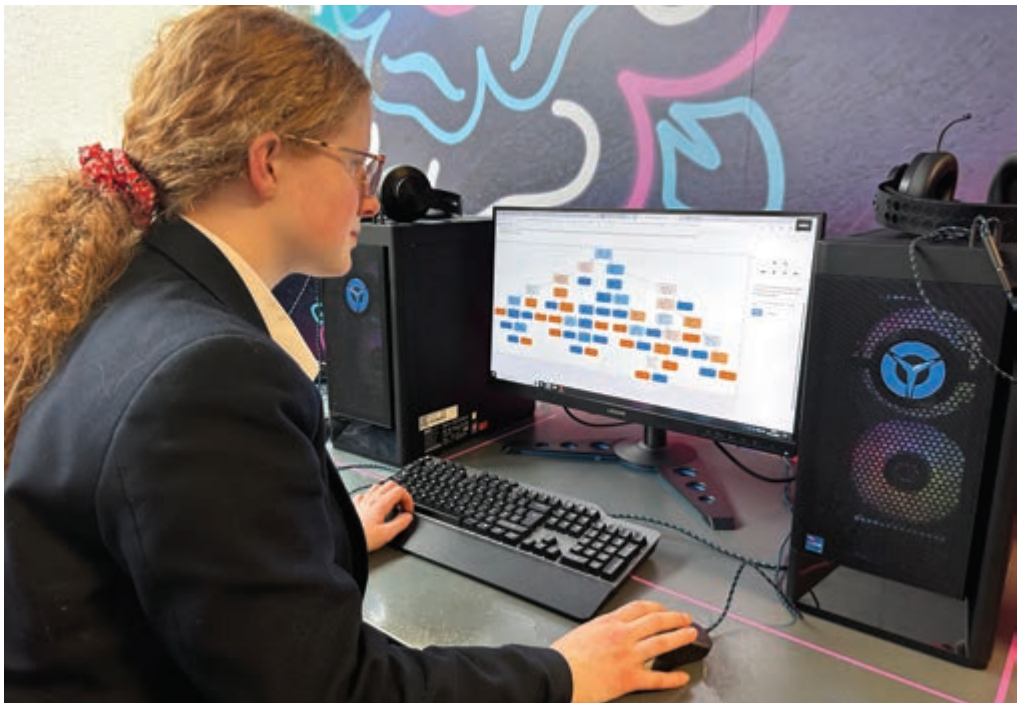
What the resources cover

The new AI safety module addresses topics that are already familiar to educators, such as media literacy and online safety, but reframes them through the lens of artificial intelligence. The aim of the lessons is to encourage students to think critically about the systems they encounter in everyday life.

Each lesson explores a specific area:

- **Your data and AI** – How data-driven AI systems use data differently to traditional software, and the implications of this for data privacy concerns
- **Media literacy in the age of AI** – Explores the ease with which believable AI-generated content can be created, and the importance of verifying information
- **Using AI tools responsibly** – Encourages critical thinking around how AI is marketed, and develops students' understanding of their own personal responsibilities and those of developers

"For today's young people, understanding how to use AI tools responsibly is crucial"



Each lesson is designed to engage young people in considering both the ethical responsibilities of AI developers and their own prior interactions with AI systems. The lesson materials include short animated videos to introduce key concepts, screen-free activities to reinforce learning and structured discussion prompts intended to spark reflection. Above all, the resources are designed to be used flexibly.

Educators can run a full one-hour lesson, deliver a shorter session during tutor time or draw on suggested discussion questions to explore key ideas more informally.

There's no pressure to explore every topic, and the content can be easily tailored

to suit your setting. You could, for example, present a class of 14-year-olds with a discussion question concerning the rise of inappropriate deepfake images, but opt for a more age-appropriate topic when teaching a class of Y7s.

At its core, Experience AI is about enabling everyone to deliver high quality AI learning experiences, without the need to already possess a technical background or specialism in computer science.

Why AI safety education matters

To further support educators, the Raspberry Pi Foundation is working with the UK social enterprise Parent Zone to provide free training sessions, both in-person and online. These are designed to help educators feel confident in delivering AI content, whatever their existing background or specialism.

Educators attending the sessions will explore the Experience AI materials in depth, and learn how to adapt them for their specific classroom needs. As one participant shared with us, "*I found it really interesting, it was very insightful. I think I learned a lot about AI as a whole and the different ways we use it in our day-to-day lives. They will definitely be good resources to use. I think they're quite interactive, and that's really important to engage a class. Young people tend to be quite interested in AI, so it's a very topical point of discussion.*" Find training details at **parentzone.co.uk/ExperienceAI**.

Experience AI isn't about turning every student into a computer scientist; it's about helping young people become informed digital citizens who will be ready to ask questions, challenge assumptions and use technology wisely.

Whether they're learning about the ways in which AI systems use data, or exploring the ethics of deepfakes, students will be encouraged at all times to think more critically about the digital world they're growing up in.

By using these resources, educators can give students the confidence to navigate AI, and maybe even shape its future. To explore the free classroom materials, visit **rpf.io/aisafety-ts**. Together, we can make AI education more accessible, engaging, and above all, safe for every learner.

ABOUT THE AUTHOR
Mac Bowley is a Learning Manager at the Raspberry Pi Foundation; a teacher in his spare time, he enjoys showing people of all ages how computing works, and when away from screens, is an avid baker

A TEACHER'S PERSPECTIVE: AMY'S STORY

Amy, head of computer science and leader of digital learning at Talbot Heath School, first discovered the Experience AI programme via an email from the Raspberry Pi Foundation. Always looking for new ways to inspire her students and support her colleagues, she trialled the first three lessons with her Y8 class – a group of girls with mixed abilities.

The experience was a positive one from the start, with one activity in particular really standing out. It was an interactive exercise, in which students were tasked with exploring how an AI model distinguishes between apples and tomatoes. The hands-on task led to some lively classroom discussion, while deepening students' understanding of how AI systems are trained.

Amy valued how flexible and adaptable the resources were. The slide decks, lesson plans and worksheets allowed her to tailor sessions to suit the needs of her class, combining different elements to maintain interest and engagement. Despite some initial hesitation among those students who felt daunted by the concept of AI, the Experience AI materials helped break down barriers and spark genuine curiosity.

As someone who had never taught AI before, Amy approached the topic with a '*Let's see how this goes...*' mindset. Over time, her own confidence grew, both in terms of her subject knowledge and in her ability to explain AI technologies to colleagues across the school.

"*Some students were nervous at first, especially with all the hype around AI,*" she says, "*but the resources made the topic more approachable, and gave them the space to explore and gain confidence.*"

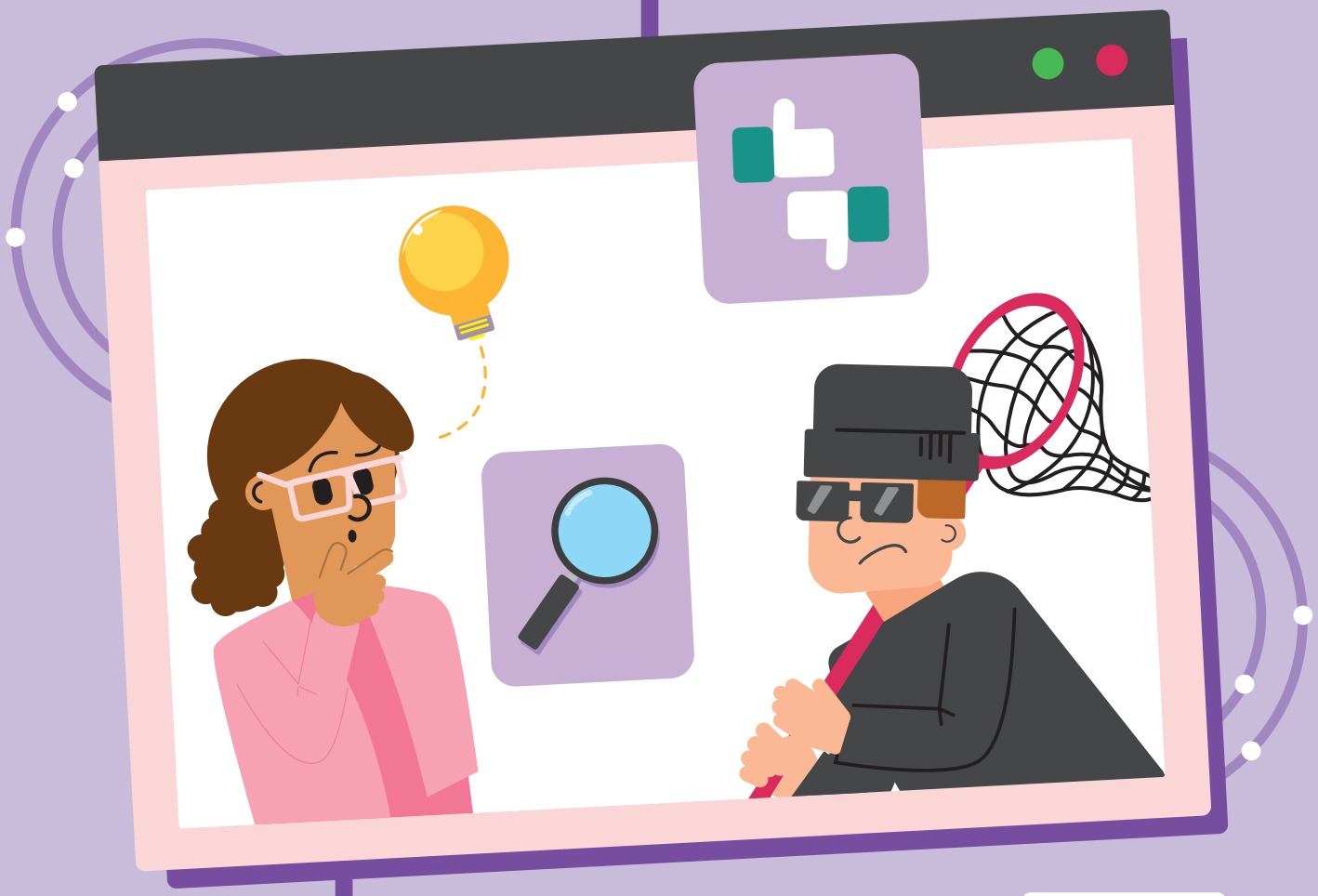
Amy now recommends the resources to other teachers as a strong foundation for AI education:

"*They're adaptable and well designed, especially for those new to the topic. It's great to have the flexibility to tweak and tailor things to suit your own lessons.*"

Free AI safety resources for your classroom

“Exceptionally good resource for schools!”

- teacher, UK



Download the resources at **rpf.io/aisafetyts**

Google DeepMind | Raspberry Pi Foundation **Experience AI**

5 REASONS TO USE... Experience AI

If you're a teacher unsure of how to go about teaching AI, help is now at hand...

30 SECOND BRIEFING

Ready to introduce lessons on AI? Join Parent Zone's growing Experience AI teacher network, which will empower you with all the training, support, and resources you'll need.

1 NO EXPERIENCE NEEDED

Heard a lot about AI but unsure how to teach it? You're not alone. Parent Zone's Experience AI training is designed for teachers with no prior computing or STEM training. You'll get to grips with key AI concepts, including bias and ethics, anthropomorphism and what AI means for young people's future careers.

Developed by the Raspberry Pi Foundation and Google DeepMind, the sessions are hands-on, practical and designed to build your confidence, no matter your starting point.

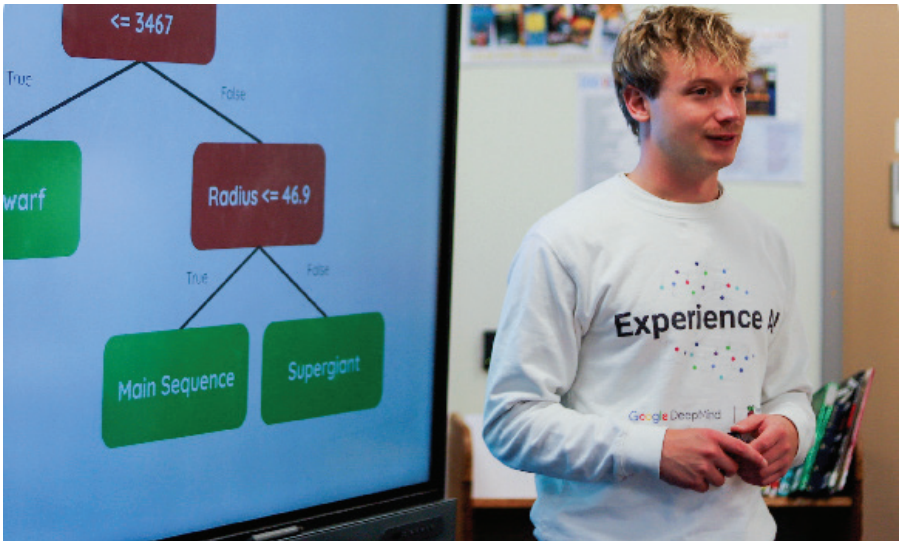
2 READY-TO-USE RESOURCES

The training supports the use of the Experience AI programme – free, curriculum-linked lessons designed for pupils aged 11–14. The lesson resources include slides, videos, interactive activities and assessments that make AI engaging and accessible for young people. 98% of the teachers we've trained said the course improved their understanding of AI, with 94% finding it of a high quality and useful to them. The resources are designed to be used straight away, with the training ensuring that you're ready to deliver with confidence.

3 EVENTS THAT WORK AROUND YOU

We know how stretched a teacher's time can be, which is why there are multiple ways of taking part. Choose from in-person training (with travel bursaries available), interactive virtual sessions or in-school training. Each option is free, expertly delivered and packed with practical takeaways.

Whichever format you choose, you'll get the same high-quality experience, the same ready-to-teach resources and the chance to grow your AI confidence alongside other practitioners.



Experience AI | Google DeepMind | Raspberry Pi Foundation | parentzone

Contact: Parent Zone supports secondary school educators with free teaching resources and training to improve outcomes for young people in the digital age. **programmes@parentzone.org.uk | parentzone.org.uk**

4 SUPPORTIVE, TEACHER-FOCUSED ENVIRONMENTS

Whether you're brand new to AI, or just need a boost of confidence, our supportive training approach makes complex topics clear and approachable. You'll take part in hands-on activities, ask questions freely and leave with the knowledge and tools to immediately apply what you've learnt in the classroom. Plus, you'll be joining a community of educators all exploring the same challenges and opportunities presented by AI.

5 UNDERSTANDING THE DIGITAL FUTURE

AI is already shaping the world around us, as more and more students encounter it every day. Our training lets educators take the lead in preparing young people for a future in which to be 'digitally literate' will entail understanding algorithms, data biases and machine learning. Our sessions will equip you to guide meaningful, informed discussions in the classroom, and help students become not just consumers of AI, but critical thinkers and responsible digital citizens.

Key Points

Become an Experience AI educator, connect with peers, share best practice and build your confidence in teaching AI by signing up for free training at parentzone.org.uk/ExperienceAI

The training is perfect for non-specialist secondary teachers of any subject, spanning step-by-step guidance, accessible content and practical support

Participants get to access classroom-ready resources for ages 11–14 co-developed by the Raspberry Pi Foundation and Google DeepMind, covering everything you need to start confidently teaching AI

Choose the training format that suits you best – take part virtually, attend in-person at a London venue or enquire about our in-school training to upskill multiple staff at once

Data without THE DRAMA

Elliott Lewis presents an IT leader's guide to achieving GDPR mastery...

Picture this – your school's data ecosystem hums like a well-tuned server room. Dashboards glow, strategy meetings run on evidence and teachers have all the insights they need to make every lesson count. Then someone mentions *GDPR*, and suddenly, the room feels a little colder...

If that sounds familiar, you're not alone. Compliance can feel like a bureaucratic labyrinth, but for IT decision-makers it's also a chance to lead. It provides an opportunity to show how rigorous protection and real-world access can, in fact, happily coexist.

Culture first, tech second

GDPR success isn't solely about the use of clever tools; it's about adopting the right culture and mindset. When every staff member, from governors to classroom assistants, understands their role as a *data custodian*, the risk curve flattens. Regular training, clear privacy notices and leaders who model best practice create a 'compliance reflex', where doing the right thing becomes routine.

Consider onboarding. A new staff member's first week is often a blur of lesson plans and logins. Slip GDPR training into that moment, and you'll set expectations early. The use of short, scenario-based sessions – '*What would you do if you received a pupil's medical record by mistake?*' – can make the rules both tangible and memorable.

That said, don't stop after week one. Quarterly refreshers – ideally built around recent real-world incidents – will help to keep the subject alive. A 5-minute segment during staff meetings – 'Breach of the Month' or 'Privacy Pitfall Spotlight' – could help to reinforce lessons, without coming across like another compliance lecture.

Security meets accessibility

Locking information in a digital vault is pointless if no one can use it. Well-planned, role-based permissions will let teachers view only what they genuinely need, while safely affording broader access to safeguarding leads and IT admins.

Imagine a science teacher who simply needs to retrieve attendance and grades data for their own classes. Compare that to a pastoral lead, who might be tracking wellbeing across different year groups. The difference in need is obvious, so make sure your access controls reflect that. Good governance means every click is justified.

External sharing demands encryption and formal agreements, but those controls shouldn't slow down teaching and learning. When a school nurse needs to exchange information with a healthcare provider, for example, a secure file-transfer platform with automatic logging can ensure that the process is both swift and auditable.

Even routine interactions – like emailing a spreadsheet to a supply teacher – require scrutiny. Is the file password-protected? Have addresses been double-checked? Small habits reduce big risks.

Breach Response Is a Team Sport

And yet, even the most secure networks can still suffer a breach – a lost laptop, a phishing email, a misaddressed attachment. The difference between a scare and a scandal is preparation.

> *"The difference between a scare and a scandal is preparation"*

Your playbook should therefore cover the following five essentials:

1. Immediate reporting lines so that no one hesitates
2. A focus on containment to ensure breaches are rapidly controlled and minimised
3. Forensic investigation to pinpoint what happened and which records were touched
4. Clear criteria for notifying the Information Commissioner's Office and affected individuals (within 72 hours in cases of high risk)
5. 'Lessons learned' meetings that turn each incident, large or small, into a catalyst for tighter controls

Rehearse these steps like a fire drill. A short tabletop exercise once a term will help staff to react calmly when the real thing hits. After one UK school ran such a drill, they discovered that their contact list for emergency notification hadn't been updated in a year – a simple fix that might otherwise have caused a regulatory misstep.

The AI wildcard

Automated grading, predictive analytics, personalised learning platforms – these are all revolutionising education and complicating privacy. So before rolling out any AI solution, interrogate it. Is the data processing necessary and proportionate? Have you completed a Data Protection Impact Assessment (DPIA)? Could a simpler tool achieve the same outcome?

These checks aren't just about legality. AI systems can inherit biases from the data they're trained on. If an algorithm starts flagging 'at risk' pupils based on skewed historical patterns, you could face not just regulatory trouble but ethical scrutiny. Treat these questions as a

standing agenda item for your IT governance board.

Consider also piloting AI tools in a controlled sandbox environment first. Collect feedback from teachers, parents and even students concerning the potential issues around transparency and perceived fairness. Their input can surface concerns that a purely technical evaluation might miss.

The 'invisible firewall'

Technology alone won't save you. Ongoing staff training, crystal-clear privacy notices and leadership that models best practice will all help to create cultures in which compliance is second nature. When everyone sees data protection as part of their job, you reduce risk and rapidly build trust.

Leadership also matters when resources are tight. Budgets rarely stretch to every item on the security wishlist. Senior IT decision-makers must therefore weigh certain investments – a newer firewall, say, versus expanding staff training – and show governors the return on every pound spent. Often, the cheapest and most effective measure is education. A single well-crafted phishing simulation can reduce successful attacks dramatically.

And remember, *culture flows downward*. When executives take GDPR seriously – asking probing questions in board meetings, reviewing audit results, publicly praising good data habits – staff notice. That visibility turns dry policy into a shared mission.

Futureproofing through process

Regulation will evolve. The EU and UK may yet diverge. AI governance is already on lawmakers' desks. Schools that treat compliance as a one-off project will forever be playing catch-up. Those that embed it into everyday processes – regular audits, annual DPIAs for new tools, vendor checks – will adapt with ease.

Think of compliance as continuous improvement, rather than a finish line. A scheduled quarterly review of data flows, retention schedules and third-party contracts will soon become as routine as testing the fire alarms.

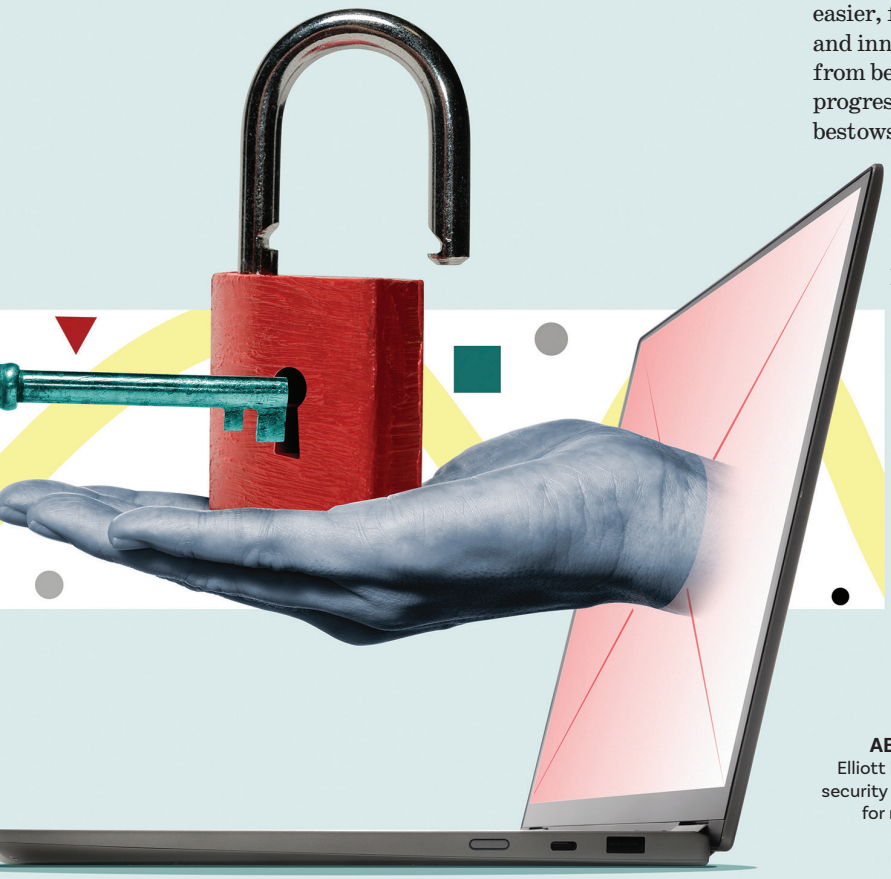
Some IT leaders are now building 'data governance dashboards' that visualise risk levels, breach metrics and training completion rates. The payoff for this is twofold: governors gain quick oversight, and the IT team spots weak points before regulators do.

Why it matters

Handled well, GDPR isn't a speed bump; it's a *trust accelerator*. Parents and staff notice when a school treats its personal information with care. Regulators see it in your documentation and quick responses. Your own leadership team will benefit from having cleaner, more reliable data informing their decision-making.

In an era when public confidence in institutions is fragile, that trust is priceless. A reputation for responsible data stewardship can make partnerships easier, funding bids stronger and innovation faster. Far from being a drag on progress, GDPR, done right, bestows a competitive edge.

When data is managed as carefully as the pupils it represents, IT decision-makers can move from being silent guardians to strategic partners, turning compliance into a story of confidence, credibility and progress.



ABOUT THE AUTHOR
Elliott Lewis is chief information security officer at ParentPay Group; for more information, visit parentpay.com

A GDPR TOOLKIT FOR BUSY IT LEADERS

1-MINUTE AUDIT

- **Data map** – Keep an up-to-date record of where every dataset lives and who touches it.
- **Retention clock** – Flag files approaching end of life so that they're deleted or anonymised on schedule.
- **Third party contracts** – Check vendors' security clauses and insist on documented data-sharing agreements.

RAPID RESPONSE PLAYBOOK

1 **Identify and contain** – Isolate affected systems and secure backups.

2 **Assess impact** – What categories of data are involved and what's the risk to individuals?

3 **Escalate** – Alert your data protection officer and SLT immediately.

4 **Notify if needed** – ICO and data subjects must hear from you within 72 hours if there's high risk

FORWARD-LOOKING HABITS

- Run penetration tests and regular security audits.
- Require multi-factor authentication for all staff and admin accounts.
- Bake data protection impact assessments into every new project plan – from cloud migration to AI pilots.
- Annual refresher training – short, scenario-based sessions keep awareness sharp. These actions aren't glamorous, but they turn GDPR from a regulatory headache into a routine discipline – while also giving you evidence for when the auditors or inspectors come calling.

Building technical RESILIENCE

When making a major edtech-related purchase, how can you be sure that the products or services in question will go the distance? Well, it can help to ask the right questions...

When educational technology falters, schools feel it immediately. "*Technology is meant to be an enabler,*" says Ian Tufts, chief technology officer for ParentPay Group. "*Slow performance or downtime distracts teachers from their core responsibility – teaching – and forces them into troubleshooting mode. School leaders may be taken away from leadership to support with manual processes and admin, and they don't have essential student data they can rely on.*"

These challenges can then be amplified by our modern consumer expectations for near-instant response. "*Our tolerance for delay is almost zero,*" Ian adds. "*Administrative tasks – like taking the register, or recording behaviour data – need to be seamless. If systems stall, staff lose time and focus, and safeguarding records can be put at risk.*"

So, what should IT leaders look for when selecting a supplier? Availability is key, but that should be seen as just the starting point.

"*Review performance over time,*" Ian advises. "*Look at a supplier's openness about incidents, their disaster recovery testing, and whether they hold independent accreditations, such as ISO 9001 for quality, ISO 27001 for security or PCI DSS for data processing.*"

Scaling to demand

Recovery planning matters just as much as day-to-day speed. "*Two questions cut through the jargon,*" Ian explains. "'*Recovery Point Objective' – how much data could be lost if a system fails? And 'Recovery Time Objective' – how long it would take to bring the service back? A daily backup might mean you lose 24 hours of data. We build in synchronous, real-time replication, so that if one data centre fails, another will instantly take over with minimal disruption.*"

Ian points to the invisible work carried out behind the scenes that's responsible for

EDTECH CHECKLIST

Specific edtech solutions and providers that can be relied on in the long term will tend to feature the following:

- Proven uptime and transparent incident reporting
- Independent accreditations (e.g. ISO 9001, ISO 27001, PCI DSS)
- Clearly stated Recovery Point and Recovery Time Objectives
- Evidence of regular load testing and auto-scaling
- Robust supply chain risk management

that reliability: "*We design for resilience from the outset,*" he says. "*Instead of one large server, we scale horizontally – adding many smaller 'nodes' so that the system can reroute if one fails. Auto-scaling in the cloud lets us meet unexpected spikes without wasting energy when demand is low.*"

That scaling is tested constantly. "*We run load tests using tools like Gatling and JMeter,*" Ian explains. "*We simulate thousands of teachers taking the morning register, or parents rushing to top up dinner money, ramping traffic up and down to find break points. Azure's Kubernetes technology then spins up extra computing power automatically when usage passes set thresholds. We know that every morning, more than 31,000 people will log on to take registers through our cloud version of SIMS – so it's vital that our systems are robust enough to cope with demand.*"

Sector-specific insight

These planning processes also have to take account of the school calendar. "*We know that September and January bring surges, as pupils return and parents set up payments,*" Ian says. "*Our engineering and support teams work round the clock, and are laser-focused on the early morning load from 7am, so that we're ready when logins begin and can ensure that there's no disruption to the school day.*"

"Catastrophic outages often come from a hidden supplier weakness"

That sector-specific insight is a key differentiator. "*You can buy cloud services anywhere,*" Ian notes, "*but understanding how schools operate – what time registers open, when exams are going to create extra load – means we can anticipate demand and fix issues faster.*"

Finally, Ian urges decision-makers to probe suppliers' contracts and supply chains. "*Some organisations run on a 'minimum viable' approach, and accept long outages because it's cheaper,*" Ian concedes. "*Building safe, reliable, scalable and performant systems is hard, and takes ongoing dedication and investment. We provide systems that can safely be relied on by tens of thousands of teachers, and also millions of school children's parents, so we need to be able to safely rely on our suppliers.*

"*Ask providers how they manage third-party risk, whether they operate across multiple independent processing sites, and how often they test failover. Catastrophic outages will often come from a hidden supplier weakness.*"

For schools, the lesson is clear – technical resilience isn't just about shiny features. It's about architecture, and testing and cultivating a culture that treats uptime as mission-critical – so that the teaching and learning need never have to pause.

For more information, visit parentpay.com

QUESTIONS FOR YOUR TECH SUPPLIER

1. **How do you handle unexpected spikes?** Look for horizontal scaling and automated cloud expansion that will keep systems responsive during registers, exams, or sudden parent-payment rushes.
2. **What are your Recovery Point and Time Objectives?** These define how much data you might lose and how quickly service will be restored after a failure.
3. **Do you run active-active disaster recovery?** True high availability requires two fully capable sites, so that the service can switch over instantly if one goes down.
4. **What independent certifications do you hold?** ISO 9001 (quality), ISO 27001 (security), and PCI DSS indicate mature processes and regular external audits.
5. **How do you manage supply-chain risk?** Ask about the financial health of key partners and whether network routes and data-centre providers are fully diversified.
6. **Will your support hours match school reality?** Early-morning coverage is essential when staff and parents log in before lessons begin.

By pressing for clear, evidence-based answers, schools can choose partners who will keep their learning on track – even when the unexpected happens.

ALL SYSTEMS SECURE?

Mat Pullen explains why schools can't afford a failing grade when it comes to their standards of data protection...

From the management of pupil records, to the producing of lesson plans with the aid of digital platforms, educational technology is now omnipresent. These tools have become so valuable for expanding learning opportunities, however, that it's sometimes easy to forget that they present fresh challenges too.

Most mobile devices used in school will hold some amount of personal and sensitive information about students. It's part of a school's duty of care to keep that data safe, but it's inevitable that data privacy will come a distant second to teaching priorities during the day-to-day – or even come to be seen as a niche technical concern. Yet as both a teacher and an edtech specialist, I've seen for myself how quickly a seemingly small issue can derail a classroom.

Here, we'll explore the most common mistakes schools make with respect to data protection, why they happen and how to build strategies that will protect both information and learning outcomes.

Device security isn't a chore

Regular maintenance of device security and data privacy should form a key part of any school's technology programme. Endpoints need to be kept up to date with the latest patches and managed with content controls to ensure their safe use by students.

Schools risk non-compliance fines if devices are found to not meet the needs of regulations such as GDPR. There can also be potential safeguarding concerns if any private information is stored on a device.

Having spent years in the classroom, and worked with schools since then on developing their technology strategy, I've seen how seemingly minor issues can rapidly escalate and ultimately disrupt teachers' ability to teach. Falling out of privacy and security compliance can also result in whole stocks of devices becoming unusable.

> *"Too often, IT, compliance and teaching departments work in isolation"*

I once worked with a school that built its lessons around iPads, only to discover mid-term that their devices were too old to accept the latest security updates. Overnight, they had to pull most of them from classrooms. Teachers scrambled to rewrite said lessons, having to accommodate a sudden shift from one-to-one device access to, in some cases, having just one device per classroom.

The lesson is clear – without secure, up-to-date devices, you can't deliver consistent, safe teaching.

Hidden cracks

These issues tend to creep up because it's easy to take digital technology for granted while (understandably) keeping your focus on lesson content and students' support needs. When I was teaching, I didn't have time to check every vendor's security claims. That's still true in most schools, especially smaller ones relying on outsourced IT support. Even larger trusts with compliance officers on staff risk similar problems if those roles are too cut off from teachers and frontline IT staff.

There are some structural issues that tend to make such problems worse – particularly siloed budgets and a lack of planning between departments. IT teams will be expected to keep devices secure on tight funds, while teaching teams may be pushing for more tech without planning for long-term costs. Both departments are often unaware of the other's priorities and how their respective needs might clash.

Another issue is misunderstanding compliance. Many will assume that buying a 'GDPR-compliant' tool makes the whole device or network compliant. It doesn't. An unlocked tablet or pupil list left on a desk is still a breach. Non-compliance may leave devices unusable until the relevant issues are fixed, or else land the school with a hefty fine it can scarcely afford.

With GDPR having now been in place for more than seven years, it can be easy to

get complacent over its requirements and see it as just an annual checkbox activity – yet compliance is an ongoing effort. Staff knowledge must be refreshed regularly, because the tech landscape changes far faster than school policies do.

Who's managing your personal devices?

Some schools might opt for bring-your-own-device (BYOD) schemes to increase tech access. However, while attractive financially, introducing personal devices into the mix can introduce new risks and management headaches.

The devices in question may run outdated software, have unsafe apps installed and lack content controls. Their visibility and access will also likely be more difficult to manage, compared to devices procured and owned by the school.

A better alternative is the 'parent-funded, school-managed' (PFSM) model. Families purchase devices like iPads, but schools manage them centrally, through Mobile Device Management (MDM). This way, settings are kept consistent, apps are secure and harmful content can be blocked. Lost or stolen devices can be wiped remotely.

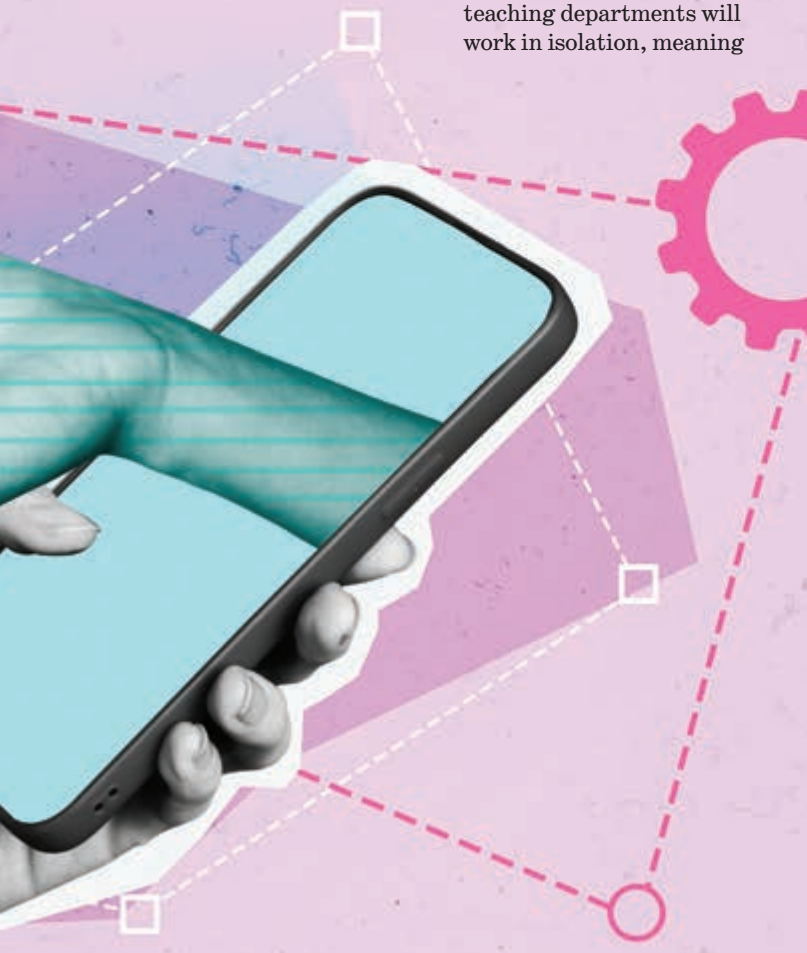
PFSM also works outside the classroom. Schools maintain control of devices during lessons, before ceding that control to parents after hours, who then get to set their own preferred limits. Trust is the key to making this work, with parents needing clear communication on what data schools plan manage, how it will be used and what level of control parents will retain once the school day ends.

Breaking the silos

Good data protection is as much about teamwork as it is about having the right tools. Too often, IT, compliance and teaching departments will work in isolation, meaning that key security decisions can made in ignorance of classroom needs. By the same token, certain forms of lesson planning may overlook important technical and compliance realities.

When budgets are split, that divide can deepen. IT may fight to stretch its meagre funds, while teaching teams focus on buying more devices. This can result in short-term fixes, inconsistent coverage and use of unreliable tech in the classroom.

Schools instead need shared planning and pooled budgets. That way, refresh cycles, security measures and curriculum goals can all be aligned. This will ensure that compliance demands don't come as nasty surprises in the middle of a term, but are instead treated as needs that are planned for well in advance. Breaking down silos will help to ensure that the technology used in your school works reliably every day, so that lessons don't grind to a halt.



Practical data protection steps

Improving data protection needn't mean ripping up your existing systems and starting all over again. What really makes a difference are small, yet consistent habits that become part of everyday school life.

One of the most effective can be to make GDPR and device security training a permanent fixture of staff development, rather than a one-off to be quickly forgotten. By weaving it into ongoing professional development, schools can make sure that their staff's knowledge stays current, and that individual colleagues feel confident in applying it.

Regular audits are just as important. These don't have to be daunting, large-scale reviews; even simple checks can highlight issues before they grow into serious problems. This can cover everything from checks for outdated operating systems, to poor security hygiene (like leaving device passwords written on Post-it notes). Catching these small slip-ups early will prevent bigger breaches later.

Parents also need to be part of the conversation. When introducing a new whole-school device programme, explaining clearly to parents how the security measures will work, and how they can help to manage devices at home will help to build vital trust and support.

Making the grade

Finally, the most effective step of all is *collaboration*. When IT, compliance, and teaching teams work together, they can anticipate any growing issues before they disrupt lessons.

Data protection in schools is about more than ticking a compliance box, or avoiding unwanted attention from the regulators. The focus must be on making sure that pupils can learn safely, and that teachers can teach without fear of disruption.

Secure, well-managed devices will build trust among parents, and give staff confidence that lessons will run smoothly.

No educator wants to receive a failing grade – but if schools plan ahead, share responsibility and embrace models like PFSM, 'security' can stop being a burden and instead become a valuable enabler for teaching.

ABOUT THE AUTHOR
Mat Pullen is director for education at the Apple device management and security specialist Jamf (jamf.com) and a former secondary school teacher

Better value, delivered.

YPO®

Back to School Essentials

Their favourite lessons start with YPO

All the supplies you need to make this school year their best one yet. ***All in one place.***

- ✓ **Trusted by teachers nationwide**
- ✓ **Best in class products at prices you'll love**
- ✓ **Free & fast next day delivery on 1000's of products***

Big savings on every page • Big savings on every page •

Exercise book prices dropped!

Get more for less with YPO
ypo.co.uk/backtoschool

*Free delivery on spends of over £25. T&Cs apply.

AT HOME

Practices and policies that can support students and families outside of school

THE AGENDA:

60 MACHINE LEARNING
Amid the discussions of how teachers and students *can* use AI, there needs to be some reflection on why we *choose* to – and what it's doing to us...

63 ACQUIRED KNOWLEDGE
We've heard a lot about 'digital natives' – but the skills young people now need to safely navigate online spaces and live well with modern technology can and should be carefully taught

66 HONESTY AND BOUNDARIES
At some point, teachers and parents have to acknowledge that social media is addictive by design, and start playing a more active role in helping students see and realise that truth for themselves

Humans in a DIGITAL WORLD

Anthony David examines how the increasing adoption of AI should prompt us to reclaim the skills that make us whole

Having initially been a bit overexcited at the launch of ChatGPT 3.5 in November 2022, we're now moving away from asking, '*How can I use AI?*' to '*Why am I using AI at all?*'

This shift from function to purpose isn't just a pivot in vocabulary – it's arguably a turning point in our culture and in education. And the turning point seems to have hit us quickly.

A moral realism

As someone who has championed the potential of artificial intelligence and led training across schools, I remain excited about what AI can offer. It can free up time, personalise learning, analyse patterns and expose insights we might miss. Used wisely, AI can be a partner in our pursuit of personal growth. But if we're not careful – by treating AI as simply a clever tool, or outsourcing too much of our thinking to it – we risk bypassing the very capacities that make us human.

My recent book, *Education, AI and Human Thought*, begins with a simple question: *What does it mean to be a human being in the age of intelligent machines?* The answers I found were neither anti-technology, nor technophilic. Rather, they pointed towards a kind of moral realism – the need for us to shape the digital world as humans, and not allow ourselves to be unthinkingly reshaped by it.

We're at a threshold. The old scripts of qualifications, careers and even certain types of knowledge no longer prepare young people for the world. Jobs are changing, and sometimes disappearing. Social structures are shifting. Within this landscape, we need to consider what human skills will endure.

> **"Not all information is wisdom, and not every output is trustworthy"**

By that, I don't merely mean 'transferable skills'; I mean *deep* skills, such as habits of thought, ways of being that help a person remain grounded, relational, imaginative and wise in a world that increasingly prioritises speed, automation and abstraction.

Discernment over data

One of the first skills we need to recover is that of discernment. Not all information is wisdom, and not every output is trustworthy. As AI floods our learning spaces with possibility, our young people will need to learn how to weigh, question and judge, rather than simply consume.

This isn't about cynicism. It's about moral courage and intellectual humility. It's about asking not just, '*What does the AI say?*' but '*Is this good?*' '*Is this true?*' '*Who benefits from this decision?*' Because without discernment, we risk amplifying injustice at digital speed. AI shouldn't be used as an excuse for delegating thought.

Screens flatten us. The digital life can easily draw us out of our bodies, our communities and even our sense of self. The risk is that, when used poorly, we

could see whole classes constantly attached to screens. I'm not trying to be overly dramatic – these changes are taking place already, and when implemented well, can really enhance learning. Yet relationships must continue to form the foundations of learning and growth. There has to be a balance.

We need to cultivate skills of presence; of being comfortable with one another, listening deeply, making eye contact, noticing silence and attending to emotion. These aren't soft skills. They're survival skills for a relational species.

Schools that intentionally teach children oracy skills, such as leadership, debating or presentation, are offering a vehicle for this, as hinted at by the government's recent interim Curriculum Review. Perhaps this is something that more of us can and should be grasping with both hands?

Creative and ethical imagination

Tomorrow's challenges – climate change, technological advancement, population displacement – will require young people who can imagine different futures, not just optimise the systems we use already. Imagination isn't a luxury, but a moral necessity. We must teach children to think beyond the given, to ask '*What if?*' and realise their own sense of agency in shaping the world anew.

At the same time, however, creativity untethered from ethics is dangerous. That's why moral imagination is key. It's not just an ability to envision the 'new' that's needed, but a willingness to anchor that vision in justice, compassion and the common good.

AI excels in certainty (and is often exceptionally polite with it), but human life is lived in the grey. We need to help young people become comfortable with uncertainty. Not to fear it, or flee from it, but to navigate it with grace.

That means teaching skills of emotional regulation, reflective thinking and adaptive learning. It means modelling vulnerability as educators. It means holding space for questions that don't have answers. Our young people don't need all the answers; what they need is the resilience to live with that tension.

The wisdom of slowness

Speed is the idol of the age. The faster the system, the better the score – but wisdom often comes slowly.

We need schools where reflection isn't a luxury, but a rhythm. Where stillness isn't idleness, but invitation. The very human skills of listening, creating, empathising and thinking deeply all require time – which is why perhaps the most radical thing we can do in a digital world is *slow down*. To create time for wonder, for conversation, for connecting the dots and asking, '*What really matters here?*'

It's said that sometimes, the most creative people only need a bit of boredom. As things stand currently, I'm hopeful. Across the schools I work with, I see leaders and educators wanting something more than just efficiency. They want meaning. They want wholeness. They want to prepare their students to not just use technology, but to live well in a world shaped by it.

To be clear, I'm not anti-AI. I am pro-human, and believe the two can co-exist – indeed, *must* co-exist – if we're to build a future worth inhabiting. But to do so, we must shift the centre of gravity in the conversations we're having.

The question isn't simply about what AI can do, but about what it means to live wisely, relationally and justly within the digital world we're creating. The answer, I think, begins with remembering who we are.

IN BRIEF

In a world increasingly shaped by artificial intelligence, the most vital skills aren't technical but human. We need to move beyond the question of *how* to use AI and begin asking *why* we use it, and what kind of people we're becoming in the process.

As both an AI ambassador and an educator, I believe that relational, ethical and imaginative capacities must be central to how we prepare young people. The future of work will demand adaptability, creativity, discernment and moral courage – all qualities that can't be replicated by machines.

Students need more than proficiency in prompt engineering or digital literacy. They need the wisdom to judge when and why to use a tool. They need the resilience to hold space for ambiguity. They need the presence to build real human relationships in an increasingly virtual world.

If we want to live humanly in a digital world, then our curriculum must reflect that. We must cultivate deep, rather than simply functional skills, habits of attention, imagination and moral reflection. These aren't optional extras but are, in fact, the very foundations of a meaningful future.

ABOUT THE AUTHOR
Anthony David is an executive headteacher in London and author of the book *Education, AI and Human Thought*

WHY I LOVE... SNAP

SENCOs and senior leaders within the North Yorkshire Local Authority discuss their experiences with SNAP assessments and intervention strategies

ABOUT US:

NORTH YORKSHIRE COUNCIL

North Yorkshire Local Authority (LA) funded a two-year SNAP subscription for their schools as part of their 'SEND Partnership' to promote identification and support of children with SEND.

TALKING ABOUT:

SNAP-SPLD (SPECIFIC LEARNING DIFFICULTIES) AND SNAP-B (BEHAVIOUR)

Can you give an example of when SNAP has supported early identification of SEND?

"We were devising a support plan for a child with dyslexia, focusing on their phonics and reading skills. We administered SNAP-SpLD, and as a result, realised how high their needs were for other areas, particularly around self-esteem and self-regulation.

This meant that alongside the phonics support, we put more in place around peer relationships, friendship and self-esteem. The strategies ended up having such a big impact that the parents wrote in to say how much better their child was doing at home, who was now reading because their self-belief went up.

Previously, I would have started with cognition and learning and only picked up the self-esteem later. Instead, we were prompted to consider that earlier, and were able to put support in place straight away. It wouldn't have been missed, but it was useful to pick it up earlier on in the process. As a SENCo, I would see those links, but class teachers not as quickly." ***– SENCo at TIG Federation (Primary)***

What impact has it had on teaching?

"Teachers find writing smart targets difficult. SNAP helps by highlighting where the highest area of need is and directs them to drill down to a target. Because the strategies are there, they've got the tools to address them, making process much tighter. Speaking as a SENCo, I can now see that the targets teachers are setting are better." ***– Deputy Head and Head of Inclusion at Coppic Valley Primary School***

"It allows us to give targeted support to children who need it, rather than just guessing and giving universal support that isn't specific. We can target it much more precisely." ***– SENCo at Seamer & Irton C P School (Primary)***

How do you work with your learners?

"By talking through the SNAP results, they're able to understand themselves. Instead of big, dramatic blowouts, they can ask to go out and cool down, have some time out, maybe chat to an adult, so it's giving them the vocabulary to talk about how they feel and the tools to self-regulate. That's really crucial, especially when they go back to their home school, because they need the vocabulary and strategies, and the interventions to use. It gives agency.

Being able to say to that child, '*Hyperactivity is a real thing*' and '*I can see it and recognise it*', they feel heard. They're not just a 'naughty child'; they have an additional need, and they feel listened to. They're entitled to help." ***– Deputy Head and SENCo, Craven PRS (Secondary)***

hachette LEARNING

Contact:
01235 827 720 | education@hachette.co.uk | hachettelearning.com

WILL IT WORK FOR YOU?

- Online questionnaires gather information from learners, teachers and parents/carers
- SNAP-SpLD profiles 20 difficulties and offers over 90 strategies for ages 4 to 16
- SNAP-B profiles 17 needs and offers over 75 strategies for ages 5 to 16
- SNAP Maths profiles 10 needs and offers over 30 strategies for ages 6 to 16

Educating the child

We need to move past the myth of the 'digital native' and recognise the online knowledge and skills young people now can't do without, says **Laura Knight**...

The structures of childhood are being reshaped by digital technologies that frame how young people learn, connect, imagine and understand themselves. The boundaries between online and offline experiences continue to collapse – accelerated by the COVID-19 pandemic, and now hastened yet further by the widespread adoption of AI, synthetic media and algorithmic personalisation.

Technology is only part of the story, however. Evolving parenting styles, shifting educational practices, the changing nature of work and the erosion of institutional trust have all converged to create a world where critical literacy (the ability to interrogate information, authority and systems), ethical reasoning and resilient selfhood are now necessities for modern life.

Digital wellbeing

Maintaining digital wellbeing demands more than simple measures such as controlling screen time. To capture the full complexity of children's digital experiences, we must teach young people to live well with technology, not apart from it, while showing them how to cultivate critical judgement and courage.

Positive and purposeful digital engagement can enhance learning, while expanding and strengthening social networks, fostering creativity and facilitating civic participation – particularly when scaffolded by adults.

That said, excessive, unstructured or unsupervised digital use correlates with higher rates of anxiety, depression, sleep disruption and exposure to harmful content. AI-driven personalisation can amplify bias, create unhealthy synthetic relationships with AI agents and be used as a tool for manipulating attention and emotion for commercial ends, in ways that children are ill-prepared to recognise.

Emotional literacy

Character education can help to address some of these challenges, but it must be reimagined for the digital age to include critical emotional literacy – the ability to distinguish authentic from constructed relationships, and navigate digital emotional life with care and discernment.

We must equip young people to recognise that their attention carries value, and that their agency within digital environments must be consciously protected, not passively surrendered. It's time to retire the myth of the 'digital native', since mere familiarity with technology doesn't bestow young people with critical literacy or emotional resilience. If left unguided, children's healthy impulses towards curiosity, sociability and creativity can expose them to risks they're not yet equipped to manage.

Adults must reclaim their role as guides, mentors and ethical coaches in digital life, even if their uncertainty makes this uncomfortable. The journey towards digital autonomy requires careful judgements around children's reflective capacity, vulnerability to peer influence and ability to recognise and manage risk.

This will demand structured guidance, with scaffolded autonomy matched to children's maturity, skills and resilience, and the complexity of the digital contexts they inhabit.

Fostering trust

Adults need to normalise help-seeking as an act of strength, and establish trusted, non-punitive disclosure pathways. They can support children with setting and keeping boundaries, helping them decide what to share, whom they engage with and when to withdraw.

By combining warmth with structure, we can set expectations, build trust and provide opportunities for independent decision-making, while respecting the child's agency.

The aim of digital autonomy isn't to eliminate risk, but to foster resilient and wise navigation.

FROM PRINCIPLES TO PRACTICE: A DECISION-MAKING FRAMEWORK

Ethical participation, resilience and autonomy can't be secured through prescriptive regulation alone. Schools and families must exercise a way of thinking that holds fast to developmental truths, even as digital landscapes change.

I propose that a simple, yet serious decision-making framework be introduced. One grounded in those capacities that education must now cultivate – capability, conscience and courage. Educators and leaders could be invited to apply those three interconnected lenses when shaping their policies, granting freedoms, responding to challenges and guiding children's digital experiences.
Read more and download the full white paper at hachettelearning.com/digital-literacy-blog

ABOUT THE AUTHOR
Laura Knight (MEd PGCE FCCT FRSA CMgr) is the founder and CEO of the education consultancy Sapio, writing for Hachette Learning

hachette LEARNING

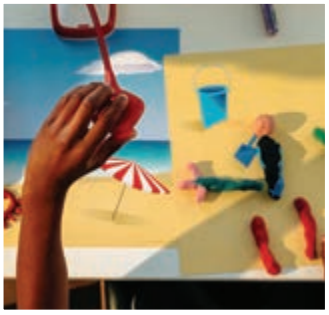
EDTECH

HUE Animation Studio Pro

A super-smart, versatile camera addition to your school's tech toolkit...

AT A GLANCE

- **A flexible and easy to use animation camera**
- **Helpful instructions and manual**
- **Easy to set up and control**
- **Pupil-friendly interface**
- **Adaptable for different ages and skill ranges**



REVIEWED BY: RUTH ASTLEY

Are you looking for new additions to your school's camera kit? Is animation on your priority list? Well, if you're looking for a solution that's high in both quality and versatility, look no further...

Technically, the included HUE HD Pro is a great USB camera in its own right, with a reassuringly sturdy construction that should prove durable for classroom use. Its strong, yet flexible neck makes it well-suited for use by pupils – as does the option to use it with the stable base powered via a USB cable. Pupils then don't need to hold the camera to take pictures or create tracking shots.

There's also the option of plugging it in without the base, straight into a desktop or laptop's USB port to use the camera as a classroom visualiser. The HUE Animation Studio Pro certainly performs well in traditional classroom applications, then – but when it's used for the purposes of animation, *that's* when the strengths of this package can be fully appreciated.

The camera's ergonomics and ease of use opens up the possibilities of stop motion film-making across a vast age range. The flexibility of its positioning and movement makes it a good fit for many other types of media, in a variety of ways – from filming visuals placed on a flat surface from above, to capturing 3D objects from different angles, or even in conjunction with a green screen. More advanced film-makers can explore its time lapse modes and different playback speeds, or even turn the camera upside down for a better angle and flip the image in the camera menu.

The quick setup guide does a good job of walking teachers through the camera's various uses and functions, further aided by the intuitive controls on the camera itself, particularly the focus ring and video feed indicator. The onscreen controls and 'project setting' options should make it easy for pupils to independently edit their creations, and even delete certain scenes frame-by-frame, if necessary. It's also easy to add external music and sound effects, either using HUE's own bank of sounds or by recording your own.

What really sets this camera apart from others I've used in the past is its suitability for different ages and abilities. Having taught clay animation to younger pupils, for example, I know how difficult it is to keep track of how your clay has been positioned in earlier frames.

The included Stop Motion Studio software features an 'onion skin' feature, so that every time you move the clay, the camera will render a fixed 'ghost' image of how the object was positioned, enabling pupils to easily line up their new image with where the old image was, thus ensuring that the final animation remains smooth.

The accompanying software even provides access to effects such as rotoscoping and pixelation, making it an amazing all-rounder for any animation curriculum, topped off with the ability to record, save and conveniently export your creations to a variety of platforms.

TECHNOLOGY + INNOVATION

VERDICT

- ✓ High quality, durable hardware
- ✓ Easily accessible software
- ✓ Useful additional resources
- ✓ Highly flexible

UPGRADE IF...

...you want a piece of film-making kit capable of handling all the classroom tasks you could throw at it.

£59.95 + VAT; see huehd.com/pro-animation for more information

EAL

FlashAcademy® Secondary

A comprehensive online teaching programme and pupil-facing app to enhance your EAL support provision

AT A GLANCE

- **An online EAL skills programme with curriculum-linked vocabulary adapted for secondary users**
- **Suitable for use in school and at home**
- **The teacher dashboard stores all assessment data and reporting**
- **Beyond the app, there is a wealth of CPD packages and practical resources available**

REVIEWED BY: RUTH ASTLEY

For classroom teachers, unlocking the world of learning for children with English as an additional language is an essential task, but one that can be extremely labour intensive. The secondary version of FlashAcademy®, however, could make a real difference.

FlashAcademy® is an online teaching programme that comes with a comprehensive range of online lessons for pupils with EAL. Its potential uses extend far beyond that, though, to encompass many helpful resources and tools for daily use in the classroom.

FlashAcademy's app interface is easy to navigate and designed in an age-appropriate way for secondary-age users – not something you can always say of EAL resources. The extensive package of lessons and videos provides early acquisition learners with all the language and skills development they'll need throughout their secondary school journey. Helpfully, users can also access the materials found in the programme's primary version, enabling teachers to dip into an even more extensive range of curriculum-aligned language resources and ensure smoother rates of progress for students.

The learning journey students take is clearly mapped out via programmes intended for groups or individual learners. The inclusion of assorted learning challenges and games, complete with live leaderboards, will help keep pupils motivated and engaged, and we're told that a custom lesson builder will be added in later down the line.

Powerful packages like this can sometimes be hindered by the design of their teacher dashboards, but that's not the case here. FlashAcademy's user-friendly dashboard interface makes all vital admin and information controls readily accessible, so that busy staff can easily use it to prepare lessons, assign tasks and set homework.

The programme's assessment functions are especially insightful, with the ability to baseline pupils before monitoring their subsequent progress across different proficiency bands. AI-powered marking features can provide teachers with highly detailed breakdowns of pupils' strengths and next steps for development, while also tailoring assessments to your particular setting's needs and cohorts. The grading systems provided are clear and precise, and could potentially serve as a valuable tools for tracking progress.

Then there's the extensive array of high quality training videos and materials intended to help teachers make the best possible use of the system, as well as the translated print documentation for parents and printable resource sheets for classroom use. One particular highlight are the 'learner profiles' spanning a huge spectrum of home languages. Each learner profile includes background information regarding the learner's home country and any notable cultural differences; key language language distinctions between a pupil's first language and English; any specific difficulties there might be in learning English linked to the home language, and more besides.

FlashAcademy® is definitely worth investigating, as it could well fulfil many of your pupils' needs and give their learning of English a real boost.

TECHNOLOGY + INNOVATION

VERDICT

- ✓ Easy to access and use
- ✓ Specifically designed to enable curriculum-aligned language acquisition for EAL learners
- ✓ Presents teachers with a wealth of CPD and support materials
- ✓ Ideal for tracking progress both in school and at home

UPGRADE IF...

...you want a programme for EAL learners that does everything you could ever need, all in one place.

For more information, visit flashacademy.com

A silent addiction

Why we owe it to our students to confront the purposefully addictive nature of social media and its frequently malign impacts

Would you approve of illicit drugs being used by students in your school? How about the smoking of cigarettes or vapes? Alcohol use? I'd hope that your answer to each of those would be an emphatic 'no'.

As staff, we understand that these things, even if legal, are damaging and highly addictive. We know that our students – no matter how bright – aren't fully capable of making rational decisions about substances that could decimate their young lives.

Slithering distractions

Teenagers live with an optimism that assumes tragedies only befall other people, and that's part of their charm. We want them to believe in the possibilities and potential of a bright future, but it also means they underestimate risk.

So we protect them. We set rules. We ban vapes and alcohol on school grounds for reasons of safeguarding. We know that addiction can consume even the most diligent among us, if given the chance.

So why do we lack that same clarity when it comes to social media and phone use? Because what, exactly, is social media doing in our schools? Is it a learning tool? A driver of creativity? Or a silent, slithering distraction – always nearby, whispering comparisons, likes and notifications into our students' ears?

The ache of withdrawal

Social media isn't harmless. It's an algorithm-driven, dopamine-spiking machine that's engineered to be addictive. And it's working as intended.

I've been told that this is an overreaction. "*Kids today aren't addicted,*" others tell me. "*It's just modern life.*" "*Adapt or be left behind.*" But they're not seeing what I'm seeing.

I was raised by an alcoholic. I know what addiction looks like. I used to smoke, and can remember the physical ache of withdrawal. If you can recall how it feels to witness, or experience the comedown from any type of addiction, you can spot it in others a mile off.

I once took a group of students to a Scout camp, where they had to surrender their phones upon arrival, and what I witnessed was startling. Day 1 – anxiety. Day 2 – anger, even rage. Some experienced full-blown physical symptoms in the form of shakes, panic and tears. This was withdrawal, plain and simple.

But then came Day 4, and I suddenly saw children again. Real children. Not teens curating their lives for an audience, or measuring their worth in likes – just young people laughing, playing and connecting. They climbed trees, told jokes, sat around a fire. They were present. For many, it was the first time they'd felt like that in years.

Walking on eggshells

Yet somehow, the idea of banning social media in schools remains controversial. '*They need to learn how to navigate it!*' we're told. True – but we don't teach the dangers of drink-driving by handing out a set of car keys and a bottle of vodka, do we?

'*They need to be prepared for modern life!*' I agree wholeheartedly, but preparation doesn't mean surrender. Disinformation is has become part of modern life too, and we don't let that go unchecked.

'*They'll just use it anyway.*' Maybe – but again, we don't allow smoking in corridors just because a few students might otherwise light up in the toilets. I'm not suggesting we pretend that the digital world doesn't exist – we do need to educate students about social media – but education doesn't require unrestricted access. It requires boundaries and honesty.

We see the impact of phones and social media every day. The shrinking attention spans, spiralling mental health challenges, the rising anxiety. Students checking phones under desks, zoning out of lessons, glued to the validation loop of likes and comments.

So why are we letting these platforms into our classrooms? Why do we act as if that's inevitable and we're powerless to stop it? Because we're *not* powerless. Schools should be sanctuaries. Places of safety, focus and growth. Unfettered access to social media isn't compatible with that mission. At best, it's a distraction. At worst, it's deeply damaging.

So let's stop pretending otherwise. Let's stop walking on eggshells around this issue and have the courage to do what we know is right. Let's protect our students from the addiction we're too afraid to name.

ABOUT THE AUTHOR

'I, Teacher' is a secondary teacher, teacher trainer and writer challenging binary teaching narratives. For more information, visit **theteacherfilesexposed.wordpress.com** or follow **@i-teacher.bsky.social**

ASUS EDUCATION

ASUS ExpertBook B1

Learning made easy

Packed with education-friendly features and power, ASUS ExpertBook B1 is the ideal choice for inspirational educational institutions. With a compact design, a bright, clear 14-inch display for vibrant visuals, plus impressive performance, enterprise-level security, military-grade durability, and extensive connectivity, ExpertBook B1 is the perfect portable partner to empower learning.

intel CORE i7

13th Gen Intel® Core™ i7 processor

Learn more at: https://www.asus.com/laptops/for-work/expertbook/expertbook-b1-b1402-13th-gen-intel/

hachette LEARNING

Find out more and book your free demo at **hachettelearning.com/boost-insights**

I feel like I can have the whole school attainment at my fingertips.

Deputy Head, Dairy Meadow Primary School

The online reporting companion to Hachette Learning assessments for primary and secondary:

NTS Assessments · new gaps · new pira primary · new puma primary · ACCESS READING TESTS · ACCESS MATHEMATICS TESTS · Salford Sentence Reading and Comprehension Test · Basic Number Screening Test