

DIGITAL FOOTPRINTS & THE DIGITAL REVOLUTION

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There's a technological growth spurt in the classroom and, as a result, our kids' digital footprints are getting bigger and bigger.

That means a feast of data for the big tech providers.

Hackneyed as the phrase is now beginning to sound, Generation Z and – snapping at their elder sibling's ankles – Generation Alpha are 'digital natives'. According to OfCom's recent report into the digital habits of kids nine out of ten of them in the UK are online – at home, gaming or on social media, and increasingly in the classroom as part of formal learning – at some point everyday.

That translates as an awful lot of data being collected about our children as a result.

Kids aren't questioning who's collecting that information (and why would they?), let alone what it's being used for. Or even if there might be, somewhere down the line of their lives, a point where that data might come back to haunt them.

"At this point in history, younger generations are, of course, building up an online presence much earlier than any other generation," says Wesley Lynch, CEO of Snapplify, "and with more data being shared from an earlier point in their lives, this online presence is also larger."

These are unprecedented times in education. Lynch frames it as a "... massive social experiment; we simply don't know the social and legal ramifications. We don't necessarily know what the long-term consequences will be".

Our most recent young cohorts might enter the world with an almost innate technological intelligence, but we shouldn't confuse that with emotional intelligence.

"Easy access to technology does not translate into comprehension or ability, and in more cases than not, I would suggest that young people can be digitally naïve – as are most adults," says Al Kingsley, group CEO at NetSupport and the author of 'My Secret Edtech Diary'

"...the responsibility for safety needs to be on adults who are aware of the implications for having personal information available online" – Allyson Caseley

Educational psychologist and founder of Total Words, the digital book library for early learners, Allyson Caseley agrees, "This generation of school-aged children have always had technology as part of their lives. They don't have comparative experiences to judge or know what is 'good' or 'right' for them. Their world is a technology world and so the responsibility for safety needs to be on adults who are aware of the implications for having personal information available online."

But if we can properly mitigate for that, the path ahead is exciting. "To me" she says, "a positive digital footprint looks like a child engaging in digital activities that allow them to develop skills or engage with ideas that let them extend their connections to new ideas. The information available online is invaluable to learning, but I think we still have work to do to make sure that the use of technology in learning is credible as an effective learning option for all children."

"...the pandemic has been a huge catalyst for edtech, with more than two-thirds of children accessing real-time interactive online learning" – Al Kingsley

There are clear legal definitions for schools in the Keeping Children Safe in Education Guidance. But, Kingsley argues, "... this is only the foundation of duty of care in terms of monitoring, and in order to truly keep our children safe we need to empower them to develop digital skills under the umbrella of digital citizenship."

Data overload

What really let the edtech genie out of the bottle was the school lockdowns, says Kingsley. It's a little late in proceedings to waste energy on trying to create roadmaps for the digital school age when we've already arrived. "Without a doubt, the pandemic has been a huge catalyst for edtech, with more than two-thirds of children accessing real-time interactive online learning, as well as using other

digital educational resources, shuffling it to the top of schools' priority lists and agendas."

That put pressure on capacity, argues Kingsley, shifting the narrative from theoretical discussions, about the role and benefits of edtech, to focus on practicalities and evidence bases. He says: "Many schools scrambled to implement solutions, and the ever-shifting nature of the pandemic meant some were left with no choice but to fast-track the process, and sometimes in the rush overlooking the need for evidence bases before selecting tools.

"However, like everything in education, edtech relies upon reflection and lessons learnt, and schools are now in a much better position to challenge the true benefit and validity of any solution before pursuing it."

Peak tech?

So is there now too much technology use in the classroom – with all the data reaping benefits that promises for the providers?

Kingsley certainly thinks that the market is increasingly saturated, but, sounding a note of cautious optimism, that might actually give the customer more input into how platforms are developed and more clarity about how data is used and shared.

"I would argue that educators are now the driving force in the process rather than vendors. It's important to acknowledge that the most successful solutions with the strongest impact are the ones that can demonstrate co-production, aka a collaboration between vendors and educators to ensure solutions genuinely meet the needs of school communities."

"I have seen year 2 and 3 pupils trying to copy words and sentences directly from a Wikipedia page, with no understanding of what they are copying" – Allyson Caseley

How classes use the technology platforms available to them is vital, though. Best case scenario, based on Caseley's observations, is as an extension of classroom learning.

"I was in a classroom a couple of weeks ago, a year 4 (8-9 years old) class, where all

the children had a tablet with the pages of lesson examples and instructions that had been on the teacher's whiteboard. So, as each child was completing their class work, they could scroll back to check examples if they needed to. That seemed to be a very constructive use of technology in the classroom."

But she's also witnessed technology used in what teacher's often, in the staffroom at least, refer to as 'busy work'.

Something Caseley says is "... not at all helpful for learning. I have seen year 2 and 3 pupils trying to copy words and sentences directly from a Wikipedia page, with no understanding of what they are copying, what it means and therefore doing nothing but using classroom time in meaningless actions in front of a screen".

"For children with high learning needs, technology gives them experiences of cause and effect play" – Allyson Caseley

Caseley expresses relief that the march of technology is, largely, steering clear of Early Years education where connections between kids, teachers and LSAs are especially important. "I have been in nurseries where a screen is available for children to engage in a game, but I haven't seen excessive use of these options in play and fully trust that early years staff would monitor and ensure that no child spent an excessive amount of time using technology."

That said, she thinks classroom tech is really coming into its own as an aide to early learners with special educational needs, "...or physical needs that impede their connection with books or puzzles. It is easier for a child who has limited hand use to swipe a screen than pick up and place a puzzle piece, for example. For children with high learning needs, technology gives them experiences of cause and effect play. They do an action, and something happens".

Info ebb & flow

If we can't keep our kids out of the digital gaze, is there at least a way that we can 'copyright' their online presence in order to control what and how their data is used? Not at the moment, says Kingsley:

"The simple answer is that, currently, we don't have the balance right. There should absolutely be greater and more stringent

legislation to allow an individual to retain autonomy over their personal data.

However, it's vital to properly enforce these laws and have consistent standards to ensure data can be protected and potentially removed at the request of the individual."

So how much information do tech companies WANT from their users compared to how much the really NEED?

By and large, data gathered by education technology companies is anonymised; it builds information about the abilities and performance of students across regions and age demographics, and what features and modules are working, or failing when it comes to engaging students.

"...technology can play a key role in reducing the discrepancy between high achieving children and lower achieving children in schools" – Allyson Caseley

But, asks Caseley, is this something to fear? Managed correctly, isn't it something that should be viewed as beneficial, she wonders?

"It seems deeply ironic to me if we are only using technology to replace pen and paper to record data. The huge potential of edtech is to make the process of learning most efficient. Technology can let us analyse data efficiently to focus forward, planning learning programmes that maximise participation and progress.

"In doing so, technology can play a key role in reducing the discrepancy between high achieving children and lower achieving children in schools by speeding up the data processing that indicates when a child needs additional support and what sort of support they need."

Lynch agrees, "There are huge benefits to analysing user behaviour and big data. Data empowers educators to identify learning gaps and track academic progress, allowing them to adapt their pedagogical approach strategically."

Big data, he continues, can also help to solve big problems such as identifying social issues. "We have the technology to both ask and answer deeper questions surrounding the effectiveness of the education we are offering this next generation and this can be hugely beneficial."

As long as you know that agreeing to the

terms and conditions of a platform often also mean permitting them to share what they gather about you. "There really needs to be better transparency by companies so that users can make informed decisions," says Lynch.

A case in point is ClassDojo's rather opaque, 12,000-word long privacy policy. If you have the inclination to read through all that, you'll discover that they share their harvested data with 31 other organisations, and guess what? Each of those has its own privacy policies, too.

Schools, then, should be keeping a constant weather-eye on the demands for information. Kingsley draws on the principle that less is decidedly more.

"The strongest products or solutions are those which minimise the demand on data. In an educational context, Data Protection Impact Assessments (DPIAs) are a crucial part of any school's data protection toolbox, helping identify potential risks and prioritise compliance throughout. Schools should consider what kind of information the product will need, how long it will be retained, and who will have access to it."

Parent (pester) power

The clear message from all our interviewees is that we're navigating an age that's largely unknown for most parents and carers. It's time they were invited to get their hands on the wheel.

"Whether it be the school or an edtech provider who works with children, they should always involve the parents, too. In every way in society, parents are responsible for their children whilst they are minors, but online, there are many cases where parents have little visibility," says Lynch.

The data may well be created by the student, but the student isn't mature enough to properly consider all the consequences, "The school chooses the technology and children then use it, but the parents often don't know enough about how to get involved – or what they should be monitoring." Lynch believes that schools and tech providers need to equip parents more so that they can be aware and be part of their child's digital experiences. "With each playing their part, we can create a better, and safer tomorrow."

Kingsley says that schools need to interweave children's understanding of information, how they interact with their peers and engage with other digital users – and their ability to challenge it. "This should be par for the course in helping prepare students for the digital age they are growing up in. Of course, the best solutions are those which include parents as part of the learning journey."

Safe from harm

Melanie Thomson, online safety representative at RM, says online safeguarding of their charges is a constant source of worry for teachers. There are myriad online ed tech platforms and they aren't singing from the same hymn sheet when it comes to how to teach, and prepare kids for an increasingly dual future in which the real and the virtual weave a confusing web.

"Educating children in an age-appropriate way about what type of personal

information to avoid sharing online, how to ensure their privacy and security settings on social media platforms are sufficient and understanding that not everyone and everything online is reliable and trustworthy, are vital in helping young people navigate the digital landscape safely."

Melanie says there's real urgency for schools and tech providers to collaborate for a better internet. And it's essential, she says, that parents and carers are brought into that conversation, too.

"Many devices used by children at school have online filtering and monitoring controls to help shield them from inappropriate content and flag up potential concerns. Similar software can be installed on devices that are used by children at home. It is common, of course, for children to use family or personal devices in the home for remote learning as well as for entertainment.

This is why providing advice or links to training resources can be invaluable in empowering parents and carers to navigate parental controls and have conversations with their children about their experiences of the online world."

The most crucial aspect of keeping children safe online is to educate them to be digitally literate. Children are adept at using technology, but their ability to use it wisely and keep themselves safe online is still very much in development and it's our, grown-up responsibility to view guiding that development as being as important teaching about road safety and "stranger danger".

"As in the African proverb," quotes Melanie, "it takes a village to raise a child"; everyone has a role to play in creating and maintaining a better online world."

Comments by Cris Warren, Allyson Caseley and NetSupport's Al Kingsley.

