Naace

The Education Technology Association

ADVANCING EDUCATION

Spring 2018

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About Advancing Education

Advancing Education' is a leading journal comprised of an eclectic mix of academic and action research papers and reports from members, sponsoring partners and other expert guests on the innovative uses of digital technologies in education. As such it reflects the wide-ranging interests of members and sponsors and all those passionate about Edtech in all phases of education. The journal is published online twice a year.

Editorial

Dear Naace members,

Since the *Coalition* took office in 2010 there has been little to report from government in our edtech field other than a significant investment through the British Computer Society in teachers for the new subject, Computing. However, a revolution has taken place in the government's approach since the publication in November 2017 of the recommendations of the Royal Society's report, After the Reboot: Computing Education in UK Schools . Phillip Hammond has admitted that we are 8,000 teachers short. £84.5 m is being invested in a new National Computer Centre, to train new teachers with a concentration on attracting women, in particular.

In my view, this approach is too simplistic: it is not just women who do not warm to Computer Science as it is currently presented, but often teachers in the arts and humanities and those who are visual thinkers. For example, I am an English and Drama graduate who ended up authoring two adventure games for schools in the 1980s called Scoop and NewsNet. I managed a team of cross curricular teacher authors and a software team funded by BT who surprised ourselves by achieving significant international sales of an adventure designed for the 8bit computer that had 25 black and white location pictures – all in Assembler. I still cannot code, but this shows it takes a team of educators with diverse talents to develop effective learning applications.

Drew Buddy, one of our members, was one of the Royal Society Report committee that drew attention to the value of the learned societies like Naace. Indeed, the articles that have been submitted this term to the Naace journal indicate the wide range of specialisms and knowledge that members can offer: digital schools and how to manage new demands like GDPR and procurement. Also, how professionals pick up their knowledge and experience of edtech. We also have

a report on EDUCATE about approaches to edtech research with companies and reviews of books that remain influential in a digital world.

School leadership

Our first article focuses on the lack of impact of digital technologies on schools. Mal Lee and Roger Broadie are well known for their books and papers about the digital revolution. In Five Conditions Critical for Sustained Learning with Digital Technologies, their view is to explore how some of the young and their digitally connected families globally demonstrate the importance of having 24/7/365 use of 'their own' relatively current digital technologies. Lee and Broadie suggest that the young need the freedom to configure technology as desired; to ready devices for their immediate use; to select the software and peripherals that fit their learning style; to continually upgrade functionality; and, to appreciate the ownership of the kit affirms the trust and responsibility accorded them. They set out the five conditions that they believe are vital if a school is to meet the digital challenge.

Laurence Boulter, a long-term member of Naace, offers some advice about how schools might tackle procurement. He draws on a particular dialogue between senior managers and Trust advisors drawing upon a wealth of practical experience and vision that many schools might seem not to have available to them.

Although the vision we had could not be realised at the time we were confident that the possibility of its realisation was not far away. We just needed to wait for the technology to catch up and were prepared to do so.

He argues that this kind of professional dialogue is a good counterweight to the solutions offered by providers, who only have their tried and tested solutions to offer. These solutions may be valuable in some circumstances, but Laurence advises schools to rely on their experience and judgement and not be afraid to customise and adapt standard solutions – or even wait until the right solution is invented.

An issue that causes some schools anxiety is the introduction of the General Data Protection Regulation (GDPR). Stuart Abrahams, Think-IT, in partnership with the Independent Schools Council, offers a strategy, Tackling GDPR – the what, why, how, where and who of personal data in schools. Stuart submitted this article because he has found that as soon as GDPR is mentioned some school leaders become worried because there has been so much adverse publicity. Stuart says that:

> *"Some of it true, some exaggerated and, some, just scare-mongering tool. However, most leaders know that with all challenging projects you need to 'eat the elephant one bite at a time!"*

In this context, Stuart describes a detailed case study from a school that had already explored strategies for dealing with GDPR. In this study, the teachers and leaders found that a data mapping process can be a guide for so much more than straightforward compliance. They present several exercises that can really help an organisation to work out about how to turn policies into procedures that will work.

In 40 years of CPD – personal reflections, Rob Ellis pursues an anecdotal reflection on CPD and developing computing, pointing out that his view of his own professional development is anecdotal because it cannot be generalised. He believes that professionals are not well served by a one size fits all approach to CPD. He cites many of his colleagues who achieved remarkable outcomes for their pupils with hugely different teaching styles.

In EdTech more than other subjects we are dependent on the quality of digital services and products. In the final article Professor Rose Luckin has written an article about her new EU project, EDUCATE, a unique collaboration, based at UCL's Knowledge Lab, that helps and supports entrepreneurs, start-ups and SMEs working in EdTech. It forges links between the developers and educators, mentors and researchers who will guide them in their work. This is a welcome initiative to help companies to design effective technologies to enhance teaching and learning. In the next section, we have reviewed the What the Research Says book that Rose has edited.

Dr Christina Preston, Associate Professor of Education at The Institute for Education Futures, De Montfort University, has been at the forefront of EdTech for over 25 years. Christina has won 5 international awards for her contribution to education innovation in research and in practice based professional development programmes. In 1992 she founded the MirandaNet Fellowship, the first international e-community of practice, to provide educators with opportunities to share knowledge and experience about innovation in teaching and learning. MirandaNet Fellows work with associate companies on research projects that involve teachers in managing change. http://bit.ly/2aMfoLo

Christina was assisted in the editing by Rob Ellis, MirandaNet Web Editor and Senior Fellow. Design and Layout; Theo Kuechel. MirandaNet Senior Fellow.

Five Conditions Critical for Sustained Learning with the Digital

Mal Lee and Roger Broadie

In this article, we provide you with a foretaste of the discoveries we have been making from the data we have collected for our forthcoming book, Digitally Connected Families and the Digital Education of the World's Young, 1993 – 2016 (Lee and Broadie in press).

Summary

In readying the forthcoming publication on Digitally Connected Families: And the Digital Education of the World's Young, 1993 – 2016, Mal Lee and Roger Broadie soon identified two fundamentally different modes of learning with digital tools, those in and outside the school. While the schools used a planned, site based, structured, linear approach outside the young globally used a laissez faire, increasingly mobile, largely non-linear, just in time, in context model. By 2016 over a billion young, more than half globally were digitally connected and had normalised the 24/7/365 of the digital in nearly every facet of their lives, due in large part to the efforts of their digitally connected families – not the schools. The families believed that digital experience was important to their children's education and life chances. They – and not government - funded the technology and connectivity, and provided a learning environment where the children were empowered and trusted, and given the freedom largely to take charge of their learning with digital means. With the advantage of historical hindsight five conditions were critical to the naturally sustained lifelong learning.

Five conditions set out by the young and their families

From the data about digital engagement we have collected over the last twenty-five plus years, the main argument that emerges is that, globally, there are five conditions that are critical for the sustained learning of the young and their digitally connected families *(Lee and Broadie, in press: Twining et.al, 2017)*. Those conditions are:

- Ready access to personal, preferably mobile technologies;
- 24/7/365 digital connectivity;
- Empowerment and trust;
- Largely unfettered use of digital tools;
- Self-directed learning, collaborating when desired.

Note it is not the schools where these five conditions are generally found.

All five of the conditions are closely linked. Vital also are parents who believe digital engagement is very important to their children's education and life chances by providing a learning environment, a culture that facilitates and supports those conditions and a mindset that shapes the expectations and the use and learning with digital tools.

If you pause for a moment and reflect you'll appreciate those five conditions have also allowed you and the 3.65 billion plus others digitally connected to sustain your natural lifelong learning by digital means – at no expense to government.

With the advantage of historical reflection (Lee and Broadie, in press) and a contemporary study by Twining and his team (Twining, et.al, 2017), the five conditions have been evident since the launch of the Mosaic browser that opened the Web to the general populace, in 1993. This includes the importance attached by parents to a supportive learning environment.

In the next twenty-five years society will continue to move slowly from an analogue to a digital world. However, the percentage of the young using the technology has already skyrocketed, the age of the users plummeted and the digital mindset strengthened the relevance of our five critical conditions.

In retrospect, these five conditions go a long way towards explaining why more than half the world's young are digitally connected, using digital things in every facet of their lives and learning and able stay abreast of exponentially evolving technology – with no support from government or most of the world's schools.

Ready access to the personal, preferably mobile

Image Credit: Jim Bauer; CC BY ND

technologies

Obviously, without the gear, the young can't access digital technologies in their learning. Without their own kit, they can't normalise 24/7/365 use.

As an illustration in 2016, a study revealed 42% of Danish children under seven owned their own tablet and 91% had ready usage (Johansen, et.al, 2016). Comparable figures will be found in all developed nations. They point to a youth culture that will forever expect to have and use their own mobile technologies 24/7/365.

Our data underscores the importance of the young having ready 24/7/365 use of 'their own' relatively current digital technologies. They need to configure it as desired, to ready it for their immediate use, to select the software and peripherals that fit their learning style, to continually upgrade its functionality and to appreciate the ownership of the kit affirms the trust and responsibility accorded them.

From the early 2000s – but particularly since the advent of the iPhone in 2007 - the young have shown a strong preference for mobile technologies that allow them to learn anywhere, just in time, and in context, when wanted.

The App Revolution allowed the young of all ages to personalise their mobile toolkit, and to use devices they desired. Where previously the functionality was built into the device from the mid 2000s the shift to smartphones and increasingly software solutions replaced much of the old in-built services, allowing everyone to choose the apps they wanted.

Compare the apps on your mobiles with your partner's and the kids and you'll quickly appreciate the extent to which all of us have personalised, indeed individualised, our digital toolkit.

24/7/365 connectivity.

The same young people will expect, as they do now, to use a device, an app or to connect to a network the moment they desire this. They believe they have the right to do so, and will moreover expect the connection to be fast and reliable.

Image Credit: Free Images, CC BY

It has been the norm for the young of the world for near on twenty years, a norm that has been strengthened by the increasingly sophisticated and convergent technology. The young, like us, expect immediately to take a video of the whale breaching off the beach, to check the details on Wikipedia, and to edit the video and add a voiceover before posting to YouTube.

Moreover, they expect to be able to video conference with friends free of charge about the happening, and to show it to the family on a large HD screen.

Without that connectivity, most of this learning can't happen.

Empowered and trusted

Without the empowerment of, trust in and the possession of the personal technology the young can't normalise the use of digital services. Nor can families or schools.

This has been evident globally – outside the school walls – since the advent of the Web twenty-five years ago when the first families empowered and trusted their children to use the digital world astutely. Since then millions upon millions globally have opted – seemingly naturally - to do the same.

Very early on parents recognised that for the first time in history the young knew more about a domain of learning than their elders, and that there was much to be gained by supporting the children's learning and the young assisting the family to grow its learning (Tapscott, 1998).

Over this period technology has become increasingly sophisticated, powerful and all pervasive, and changed all manner of practices. At the same time the digitally connected families of the world have continued to empower and trust their children's use and learning by digital means. The young have grasped the opportunity, fundamentally changing the nature of youth, exploring new worlds and pursuing their interests and passions, all comfortable using the latest technologies, with many becoming highly competent in their area/s of interest (Ito, et al 2013) (Twining et al, 2017).

Largely unfettered use

From the outset in the early 90's some parents opted - of their own volition - not only to empower and trust their children, but also gave them the freedom to use digital items largely unfettered.

It is appreciated that in the 90s there was a mystique around the online and that many of the parents had little understanding of computing. But over time as their understanding grew, they came to appreciate they had to better ready their children for the digital and networked world and more closely monitor the use they permitted. Even the very young had considerable freedom – albeit within the bounds agreed by the family, and unwittingly by the networked society.

While little is written, it is intriguing to note how millions upon millions of young people globally for twenty plus years have

observed the universal operational mores and etiquette. While the degree of freedom varied with the developmental stages and the responsibility shown the young of the world have for many years had the freedom to go directly to the learning of the world online and by-pass the traditional gatekeepers.

From the early 2000's the young, globally, have embraced the emerging mobile technology making it very much their own, central to their lives and learning, doing largely as they wish, particularly from the upper primary years onwards.

It bears remembering that in 2009 around 25% of the world's young were digitally connected, by 2016 the percentage had risen to around 50% and is on track to reach 70% by 2022 (Ericsson, 2016).

That connectedness coupled with the freedom accorded has and will continue to change lives regardless of any desires by those in authority.

They have moreover had from the outset the freedom to use the digital to create what they like and to communicate with whom they wished – more and more free of any toll - everywhere except in the school (Twining, et.al 2017).

The school scenario

In contrast, new schools globally would not in 2018 countenance these conditions in the student's learning in a digital way.

Reflect on your own.

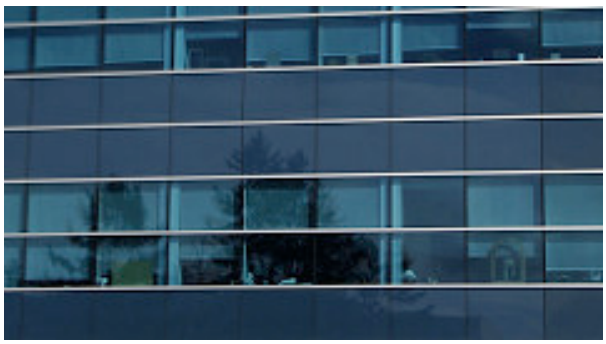

Image Credit: Paul Kohler CC BY ND

Most schools still ban the in-class use of the young's suite of mobile technologies. France for example in 2017 chose to ban smartphones in all its schools.

Digital connectivity in virtually all schools is tightly controlled, with the teachers deciding when and if it is permitted. Few would likely tolerate the idea of children instantly going online to find information.

The school and its ICT experts think that they know what is best. The children, the parents, and often most staff have no say, and are expected to comply with the school's instructions.

The student use of digital tools is tightly controlled and structured, very firmly based on distrust, with every student operation, often every keystroke monitored.

Globally schools, at the behest of government, the curriculum authorities, the edtech companies and the network managers, decide how and how not the children will learn by digital means, with no recognition given to the out of school attainment or consideration given to the young learning how to take charge of their sustained lifelong learning with the digital.

In this context, Twining and his colleagues in the UK conclude:

> *"Schools seldom replicated how children's digital practices develop outside school, especially with regard to providing opportunities for sustained and increasing participation with others who shared similar interests. Instead, children's ICT use in schools tended to be short term and discrete"* (Twining, et.al, 2017. P.vii).

Not only don't most schools support the five critical conditions but they don't nurture in the young the ability and responsibility for naturally sustaining their learning digitally lifelong. They are geared to a past world of constancy.

Our manifesto

We believe that the learning culture, the trust, empowerment, freedom and the technology all combine to allow the young to direct their learning with the digital lifelong.

It places them in charge of learning what they believe is apt, when and where, and with the support of whom.

They, and not some external party, should decide when they need to improve their capability and how they will do so.

Tellingly history in our data shows the young naturally taking control of their use of and learning with the digital tools from their initial use of the technology. If you've not already done so watch a two or three year using an iPad and you'll soon find they want to take charge, to explore, to discover, to use if they want their thumbs rather than their index finger, disliking being told what to do, except when stuck. Whether this is a natural trait, time and research will tell.

Educationally from the outset of the young have acquired a core life skill they will use and enhance for the rest of their lives.

In placing the responsibility on the individual and supporting their efforts we maintain that families have developed the vital ability to naturally sustain learning digitally, that in a continually evolving world needs to be lifelong.

That core skill soon sees the young individualising their digital capability, and while many of the capabilities will be common, others, as with all of us will be distinct. Indeed, while taking charge the young are very ready to call upon others, particularly in the family or peer group the moment the need arises.

Conclusion

Ask yourself what chance has my school, or that of my children, of meeting the five conditions critical to the natural sustained learning with the digital, that the young can draw upon and grow throughout life.

We suspect the answer will be none.

The next question is a huge one. What, if anything is the school going to do? The current very strong global trend is to do nothing.

And yet the young will continue to develop their learning in the digital world outside the school walls, continuing to deal the school out of play.

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http://edfutures.net/NP3

Mal Lee

Mal Lee is an internationally published educational consultant and author specialising in the digital evolution and transformation of schooling, and the 24/7/365 learning with the digital by the world's young and their families.

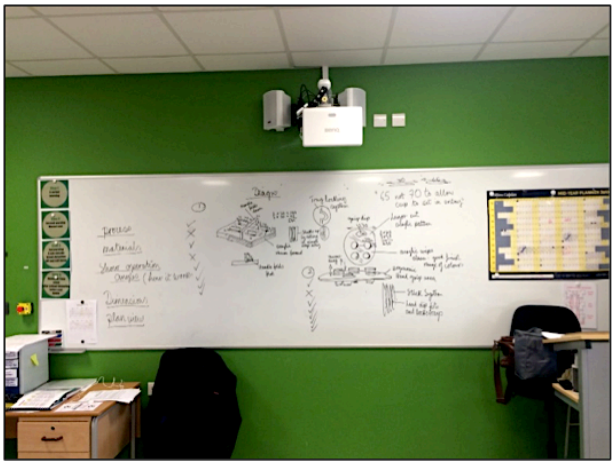
The author of eight publications and literally hundreds of published articles, his focus in recent years has been on the digital evolution and transformation of schooling, particularly by the digitally mature schools, and the lead role played globally by the digitally connected families in the young's learning with the digital. In that context, he has written extensively on the variables impacting the successful whole school digital normalisation, and the nature of learning with the digital employed by the young and families outside the school walls since the early 90s Mal is a former director of schools, head of board of senior studies, secondary college principal, technology company director and a member of the Mayer Committee that identified the Key Competencies for Australia's schools. Mal's writings and contact details can be viewed at – www.digitalevolutionofschooling.net Educational Studies. http://edfutures.net/NP3

Roger Broadie

Roger Broadie has been working with schools on development of technology enhanced learning for over 30 years. After training teachers in the use of computers with the UK Microelectronics in Education Programme he spent ten years with Acorn, the leading supplier of technology to UK schools and schools around the world, as their Education Adviser working with schools and education authorities. He led on development of the Acorn PocketBook, one of the first devices designed for 1:1 use by pupils, aided Apple in the introduction of the eMate into the UK and worked with the Apple Distinguished Schools in Europe. He led the European Education Partnership from 1997 to 2008, an Industry-Education body promoting the use of technology in European schools. He was the prime instigator of the Naace 3rd Millennium Learning Award and led the development of the Award.

Up to Requirement?

Laurence Boulter



A few years back I was engaged with designing the IT infrastructure for a new build school. Working with the leadership team we decided that we were not going to install interactive whiteboards but develop further a format explored by the ICT Test Bed project some years beforehand. This arrangement made use of Promethean ActivSlates to drive an 8ft projection where pupil interaction could be achieved by passing the ActivSlate around the class. I loved it! This was a definite enhancement to my pedagogical options and my teaching style changed significantly as, no longer tied to the teacher's desk, I could wander the class and coax pupils into engagement and stay in control of the board. No more inviting pupils to come, often reluctantly, to the front of the class, I could move between pupils quickly and introduce much more pace to the lesson. "Is she right? How would you do it?". If I wanted to demonstrate something I would stand at the back of the class… it is amazing how engagement improves if pupils can't see where you are looking!

Our more recent variation on the original concept did not make use of Promethean slates or any other kind of slate. We thought that tablet technology had come on enough to consider providing each teacher with one as their primary device and we would not need to provide a PC on the teacher's desk as we would look to connecting wirelessly to the projectors. The school's principal liked the idea of discouraging teachers from spending the lesson at their desk and we provided a lectern to use as a base. We considered installing a regular whiteboard as a projection screen so the teacher could annotate then extended this idea to provide a 3m whiteboard that would provide teachers with another level of freedom.

All seemed well until we tried to find a tablet/projector combination. Disappointingly just those few years ago it proved impossible to find a reasonably priced projector that could adequately project video wirelessly. We tried a few but it became evident that video was always going to be choppy and that a Microsoft solution (over an Apple solution where all video processing is undertaken on the device) was going to be difficult to achieve. We worked and reworked the bill of materials trying to find a working solution.

The nearest we could find was to place a small format media computer on the wall with the projector. However, the expense of this additional computer reduced the money available for staff devices and we ended up buying teachers an 11" touch screen convertible PC/tablet. We connected the PC to the projector with Splashtop, which incurred even more expense.

To be honest, staff were never comfortable with this. Splashtop was awkward to use on an 11" screen and staff could not warm to such a small format as their main productivity device. Some developed a habit of "stealing" keyboards from the pupils' computers in frustration, often leaving them hanging from the media PCs, which was more than a little tacky. The principal relented and purchased wireless keyboards for all. And that's how things remained for four years. Not exactly as planned, frustrating for teachers and not an efficient use of resources but they stuck with it. Until this term. It turned out that despite the delay in achieving full functionality the wait was indeed worthwhile.

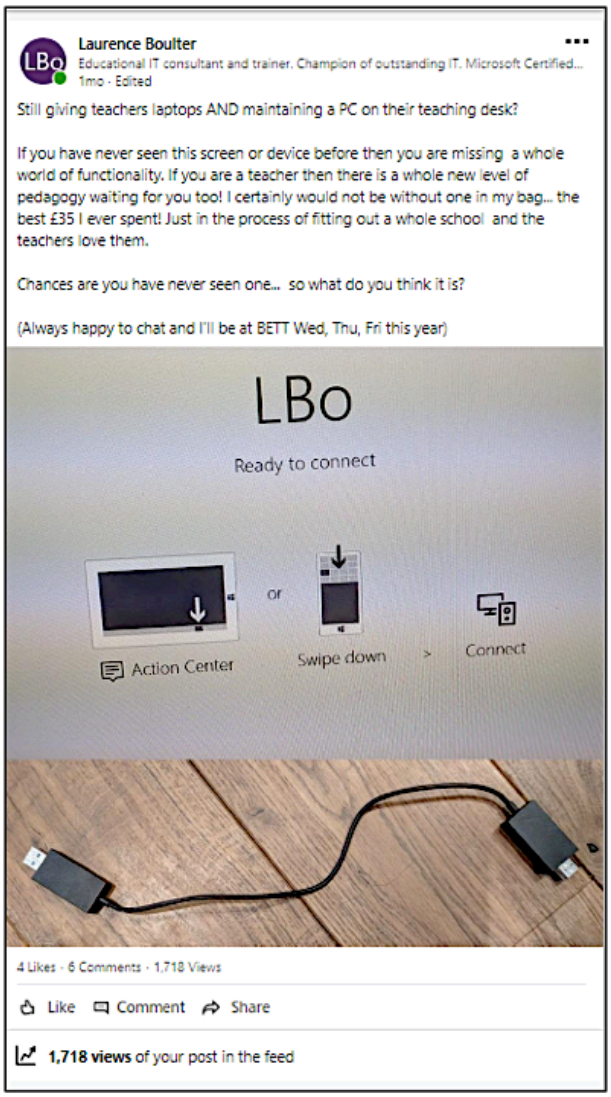
A new member of the leadership team, who was obviously a practised exponent of teaching wall technology, opened the debate again. The previous term the principal had refreshed

staff devices and replaced the 11" devices with 13" convertible laptops, so I went hunting again for a method to connect to the projectors. It was then that I learned of Miracast and, after trying a range of inferior Miracast devices, discovered the Microsoft Wireless Display Adapter (WDA) which seemed to provide all the functionality initially sought. To be fair, if the new member of SLT had not raised the issue the existence of the WDA would have slipped by me. Microsoft tend not to go for the kind of hi-vis promotion that surround products such as Chrome Cast or Apple TV and the recent introduction of the second version of the WDA would have gone unnoticed without the, as it happens timely, prompt.

Staff are delighted with the set-up and we were also able to repurpose the media PCs connected to the projectors to create two new computer suites, refresh a number of other computers around the school and retain a couple of class sets of 11" Windows devices. We ended up with a perfectly viable, in my view progressive, teaching wall design that could be an option for many schools. In fact, from the outside, this could have been mistaken for an excellent piece of strategy given the enhanced teaching wall and the resulting ripple of refreshment throughout the school. But then perhaps that is the kind of synergism one can expect when you are confident that you can anticipate how technology is going to develop?

The point I want to make in this article is that you will never be offered this solution by a provider. Providers tend to only offer their tried and tested solutions and our dialogue between senior managers and Trust advisors seemed to draw upon a wealth of practical experience and vision that many schools might seem not to have available to them. Although the vision we had could not be realised at the time we were confident that the possibility of its realisation was not far away. We just needed to wait for the technology to catch up and were prepared to do so.

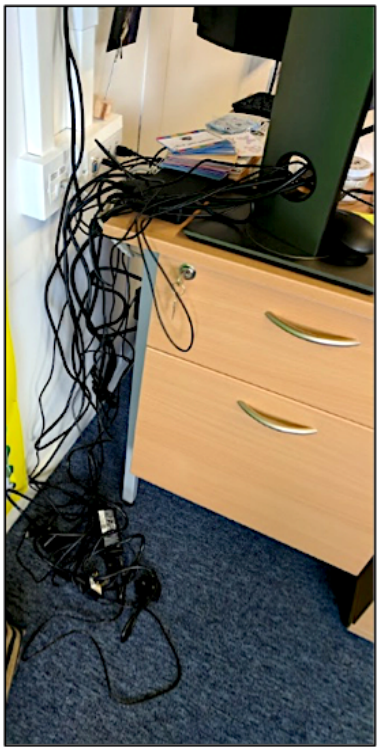
The point I would like to put to you is this. I believe that this teaching wall arrangement is a very good one with many redeeming features. I have a suspicion that it does not exist in any other school. Why this might be so is probably a result of our reliance on providers to offer solutions. These solutions are limited for a number of reasons. On the one hand providers tend to favour solutions that they have refined and found to be successful in previous installations. The elements of their teaching wall packages have been sourced, priced and deals struck with manufacturers. There is no incentive for them to explore alternative solutions although they may refine their existing theme as new technology becomes available. On the other hand, schools do not express their educational technology needs in terms of the functionality they require. I have spoken to a number of providers over the last two years all of who express frustration in determining school needs.



The present viability of this teaching wall arrangement was enabled by the recent introduction of version 2 of the WDA. What is of interest to me, and possibly indicative of the current status of schools and providers' capacity to address school needs, is the nature of the interest shown in a recent LinkedIn post where I simply asked what a WDA was. I am a regular poster to LinkedIn and this post generated far more interest than any I had published before. I received a series of private messages from providers asking for more information about the device and invitations to meet to discuss the WDA further. I spoke directly to a few, one even drove across London to talk face to face. It became evident that although all knew what the device was, none had ever

installed one in a school and none appreciated its significance as a potential component of a teaching wall.

Does this suggest a void between providers' understanding of the functionality required by schools and what schools actually want? Are schools really capable of articulating what they want or need? I wonder how many schools present the provider with a useful Statement of Requirements, or are the solutions offered predominantly the result of provider assumptions and profit margins? I suspect that many schools just assume that the solution the provider will offer by default will meet their requirements, when what the provider wants to do is install a configuration that they are familiar with.

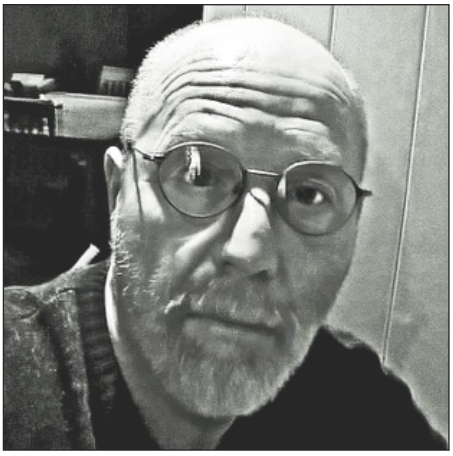


I recently came across the solution shown here. It was signed off by a primary school after installation by a well-known provider. The provider left the teacher with an interactive whiteboard with an embedded Android device, a Windows laptop, a desktop monitor and a docking station. The wiring seen here did not make use of the containment provided and a trailing lead was required to power the laptop. The learning curve for the teacher the 'firing-up' time required at the start of the lesson; and the opportunities for the teacher to rearrange his or her desk were all, in my view unreasonable and added to the workload and stress for the teacher when the main purpose of providing this equipment should be to alleviate these.

Although this particular set-up may be extreme, those that spend time in schools will know that it is not atypical. One is left wondering who exactly is in the driving seat here and in what direction they are taking us. I wonder if there are any other industries where it would be acceptable for the client to rely so much on provider assumptions and the provider proceed without a clarification of client requirements.

It seems to me is that there is a lack of vision and willingness to engage with and explore the potential offered by the technology on both sides. I know this is not true in every case, but I think we might all agree that the primary classroom wiring above should certainly happen less frequently and the confidence to explore outside of established solutions, such as utilising the WDA, should be more apparent.

Laurence Boulter



Laurence has 35 years of teaching experience with 20 years in leadership roles. Although initially trained as an art teacher he has never taught it, Laurence chose to be among the first cohort of CDT teachers where he developed a commitment for pupil centred learning and an interest in computing and electronics. In the latter half of his career Laurence moved into ICT and computing and gained experience in the implementation of IT in schools. He was a Director of ICT during the Becta ICT Test Bed project and the first Director of ICT at The City of London Academy. More recently Laurence oversaw the implementation of IT for an Ormiston Academies Trust new build school where he explored some innovative themes. Laurence has now left teaching and continues to promote outstanding use of IT as freelance consultant.

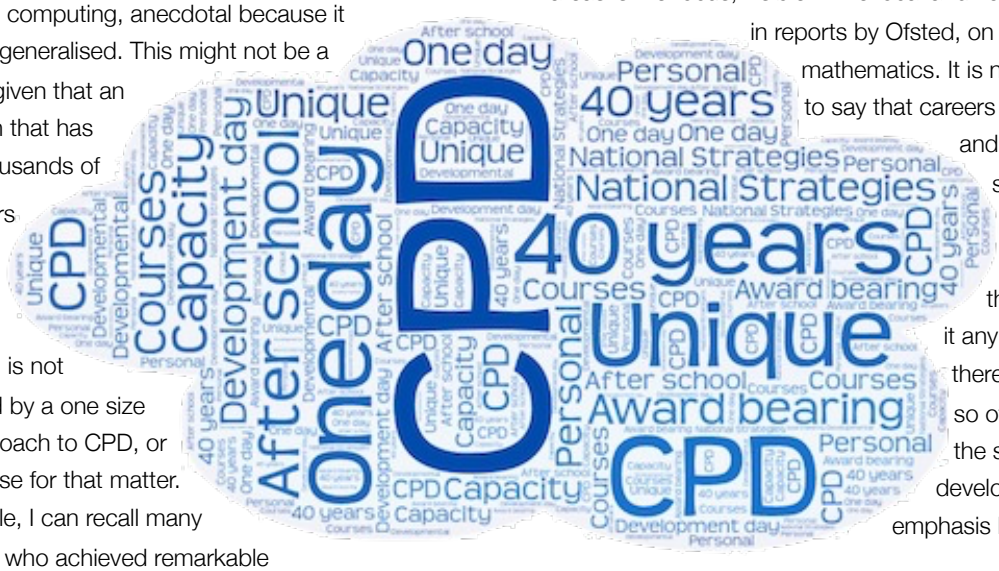
Laurence's first degree is in Sculpture which he studied at Winchester School of Art. Laurence obtained a PGCE in Art and Design Education at Reading University and obtained a Masters Degree in Science and Technology Education at the University of Southampton.

40 years of CPD – personal reflections

Rob Ellis – MirandaNet Fellow

I was a teacher for 30 years and used to joke that even the Krays didn't get that long. It's indicative of a job so vital that it is so wonderful when you get it right, but much less so in other circumstances. Next I worked for a local authority with involvement in the National Strategies, later becoming self-employed. I mention this brief biography because for 40 years or so I have been on one end or other of continuing professional development (CPD) - starting with a terminal connected to some mainframe in the early 70s, through BBC BASIC and on to tablets.

This article is my anecdotal reflection on CPD and developing computing, anecdotal because it cannot be generalised. This might not be a bad thing given that an occupation that has tens of thousands of practitioners and even more clients, all individuals, is not well served by a one size fits all approach to CPD, or anything else for that matter. For example, I can recall many colleagues who achieved remarkable outcomes for their pupils with hugely different teaching styles.



A major impediment to subject development is capacity, both in terms of time and hardware/software. As a teacher, I would spend the start of many holidays recovering from an illness brought on by long hours, but delayed until term ended. The system now is beyond capacity. It is no exaggeration to say that it is possible to email a teacher at 11pm and get an immediate reply: this has happened twice in the last two weeks.

Leaving aside the health and social issues of teacher workload, if subject development is to succeed something has to change. Perhaps some aspect of the teacher's job has to be reduced or even removed. Right now, we are pouring the contents of a 4 pint bottle of milk into a 2 pint jug.

One teacher might take responsibility for all technology teaching, but this makes a primary school rather less intimate in terms of the teacher/class relationship. Also if the teacher leaves, the school has a gap to fill and, in any case, surely every teacher should be helped to develop their use of technology to benefit the whole curriculum. It would be even harder for a very small school given that the number of responsibilities is pretty much the same as in a bigger school. But if a school goes on this route it is as well to have a shadow in case the post holder does leave – a safety net that adds something extra to someone's workload but saves on the need to recruit a specific talent.

Another hindrance to real engagement with CPD in computing and the use of technology in other curriculum areas is the focus, visible in the local and national news, and in reports by Ofsted, on English and mathematics. It is no exaggeration to say that careers can be made and broken in a school's published performance in these subjects. Is it any surprise, therefore, that this, so often, is where the staff development emphasis lies?

Developing computing and ICT use to enhance learning in other subjects is not like trying to improve outcomes in other subjects. In other subjects, teachers at least have their own school background but many, maybe most, are starting from scratch (no pun intended) in computing. The full process can be illustrated by the introduction of interactive whiteboards. Full expertise took considerable time to achieve although we are today we have largely internalised use. Making this kind of difference can be like turning round a large ship – it is very slow and takes a long time.

Of course, some schools and some teachers are better placed than others to deal with the challenge. As the recipient of CPD I've travelled through award bearing courses, one day courses, extended courses and in-school training. I should add that the shortcomings I'm going to list were not necessarily the fault of the providers, indeed they were often present in training I ran too: it is the nature of the beast.

Many short courses tended to one or other of two extremes. At one end the training related heavily to the learning theories on which it was based. The downside was that it supplied the why but not the how. Other courses would send attendees away with a collection of resources which at first sight would excite but, in the end, mostly never see use.

The National Strategies CPD was interesting and if you believe it came up short in terms of delivery of outcomes it might be because it was so well structured and organised. To explain this apparent contradiction here is a brief description. Meetings were termly for subject leaders and the materials and learning were to be cascaded to a school's relevant staff. The materials were well structured and would often be developed in later sessions over the years so that the message was developmental. Leaving aside the school situations that did not allow sufficient opportunity for the subject leader to work with colleagues the progressive and complete nature of the training was fragmented by the occasional absence of a subject leader from training. On top of that, the subject leader might move on and the replacement would find themselves starting from the middle. Thus, the structure was less effective than might be expected.

In case this all gives the impression that CPD was more of a hindrance than a help I did come away with some valuable knowledge and understanding and attended a lot of interesting and enhancing CPD. The opportunities for networking were often superb and their importance much underrated. The point of mentioning the shortcomings, which were usually the product of circumstances rather than poor practice, is to lead to a reflection on what might improve engagement with technology.

First of all, nothing succeeds like success. If someone has no background in computing or technology use they are in a frightening place. It's very easy for the already confident to tell someone not to worry about how much more their students appear to know than them and it is no comfort. In reality, the students are simply less inhibited and will try things out to see what happens, but it doesn't look that way to a teacher worried about their skill level in computing. Why not have a personal skills audit and set limited personal targets for a given time period rather than mapping out a route through the whole curriculum? The audit and selection of targets can be helpfully supported by someone else, but they should be personal. It might involve support in how personal and school objectives might be me and the curriculum developed. And start with a limited number of staff who have expressed some interest. If it works well colleagues might demand the opportunity for themselves. A cunning, and very good, head I worked for, introduced interactive boards this way giving just a few to the enthusiastic - not the worried or the cynical. After a short time, most of the others wanted to know why they couldn't have one too!

If learning is personal rather than structured organised CPD might be argued to be a hindrance to personal learning. It should be possible to start from something with which the staff member is familiar. A good example is PowerPoint which is a very commonly used tool. Before arms are thrown in the air at the apparent suggestion we all become MS Office tutors I mean that by learning how to change file type on saving and a few other little things it is possible to make movies, animations, interactive information boards. Other software is available for specifically those purposes? Yes, but the learning journey is much longer and might well be one that's undertaken with more confidence in time.

Let's encourage the belief that the National Curriculum can be addressed through many activities rather than some textbook-like route. A glance at the vast range of resources on the Computing at School website will confirm this. And let's remember that the National Curriculum, while it must be taught, cannot exclude other exciting personal interests.

This is not to put a stop to one-off courses and events on specific topics but let's have CPD that is personal, even unique, and long term, ongoing and developmental.

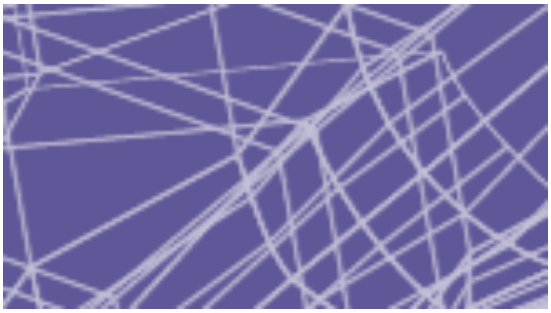
Rob Ellis

Rob has wide experience in education having been a teacher for 30 years leading mathematics, history, computing, data management as well as pastoral care for 100 children. often simultaneously. He even had one very happy experience of Ofsted! Rob has an MSc in computer based learning and training and a diploma in mathematics education (with distinction). Rob has worked on a number of national research projects before forming his own company working with schools, local authorities and private companies Today he is self-employed and does a lot of online safety work as a CEOP Ambassador.

His interests include digital storytelling and digital literacy. Recently he has been looking at reviving the idea of using programming to enhance mathematics as it was back in the 1980s with the BBC micro.

Educate; a unique collaboration between developers & educators

Professor Rose Luckin, Director of Educate, London Knowledge Lab, UCL *Institute of Education*



Education is in a constant state of flux. I refer not to the reforms of successive governments or the whims of individual Secretaries of State, but to the quiet technological revolution going on behind the scenes that is changing the way that students learn.

It is a world where hundreds of researchers and entrepreneurs are working hard to develop meaningful EdTech products and services that can be used in pre-school settings, schools and colleges to enhance teaching and learning

These initiatives often begin with great ideas and concepts based around personal experience or the identification of an emerging need. Sometimes they are discovered completely by accident in a 'light bulb' moment. However humble the beginnings, the EdTech sector has been growing for years with little or no acknowledgement or input from policy-makers and often even the teaching profession. But it is there, and it is thriving.

And that's where EDUCATE comes in.

EDUCATE is a unique collaboration, based at UCL's Knowledge Lab, that helps and supports entrepreneurs, start-ups and SMEs working in EdTech. It forges links between the developers and educators, mentors and researchers who will guide them in their work. This collaboration between six leading institutions – UCL Institute of Education, UCL Engineering, F6S, BESA and Nesta - aims to create a 'golden triangle' between teachers and learners, EdTech start-ups and researchers in EdTech to design and develop technology that will have a real and positive impact on learning.

The £4.5 million project, partly funded through the EU's European Regional Development Fund and matched by the partners, enrols cohorts of entrepreneurs from business, research and education.

The aspect that particularly underpins the work we do, and makes our programme so unique, is the access to research evidence. Not only do we offer evidence of what works to our cohorts, but we require them to produce to research of their own by asking questions of their product and its ability to perform. There is little point in designing and developing EdTech intended for use in schools if it's not fit for purpose.

As part of the offer, we provide business and product development clinics and training, and mentoring by experts in their field. Cohorts usually join us for a period of up to six months, but even after their time with us has ended, we continue to engage through an EDUCATE alumni network. We are currently developing an EDUCATE Award, which will act as a quality kitemark for participants.

Since it was set up last year, EDUCATE has helped more than 71 start-ups, companies and researchers to realise their ambitions and aspirations.

Our first three cohorts concentrated on working with SMEs and entrepreneurs. We are now moving to working more closely with teachers, both from primary and secondary schools, and early years' settings. They opportunities for EdTech in all sectors of compulsory education are endless and we believe it is important for professionals to drive this development. Not surprisingly, perhaps, the progress being made in AI use in education will be the driver behind some of those cohorts.

EDUCATE celebrated its official launch at the Bett Show in January. It was the first opportunity we had since the start of the programme to publicly promote our work and demonstrate how our project is different from others.

This time-scale was timely.

With teacher workload and retention continuing to dominate the education agenda, and government announcements that flexible working might provide some of the solutions to these challenges, there is an added impetus for bigger and better EdTech to support the work teachers do in schools.

There is, finally, a growing realisation among politicians that technologies such as AI are here to stay, and we must have a debate how it can best be implemented to the benefit of education. This was acknowledged in a policy paper published by the Liberal Democrats in March, which referred to the impact of AI and robotics on the education and future working lives of children being born today. This probably the first time one of the major political parties has referred to technology in education in this context.

There are signs that Damian Hinds, the recently-appointed Secretary of State for Education, understands the opportunities that effective EdTech can offer, and we hope to work with him on this further. When representatives from EDUCATE met with him in February we had a constructive discussion about our work, and the importance of EdTech products being underpinned by robust and effective research.

The Secretary of State was interested to learn that it was in this area of research accessibility that EDUCATE offered a unique programme and was surprised to discover that even highly qualified EdTech entrepreneurs and their teams may not know how to go about carrying out robust research about their own products. We clearly still have work to do to persuade people of the importance of this link between evidence and product development.

During our meeting we had the opportunity to impress upon him the importance of financial support for the EdTech sector to market their products. Mr Hinds wanted to find out more about the sector works with schools and keeps them informed about their products and services. EDUCATE is in the process of enhancing its work directly with schools with the appointment of a schools' liaison officer and the development of a database of schools who are willing to work with our cohort companies and entrepreneurs to test their products.

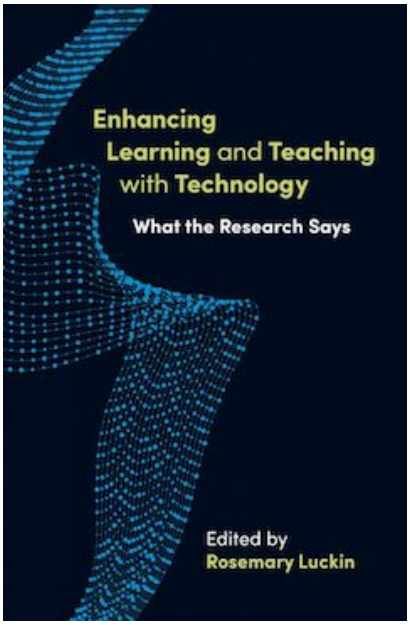
There is more the government could do to support and help the industry. The changing EdTech landscape must be a consideration when the next review of the national curriculum and its assessment comes up. It is not enough to be mindful of how this will affect Computing and ICT - but how it will impact on the content delivery and assessment of all subjects.

As an industry we have a vital role in preparing students of all ages and abilities for their futures in an increasingly digital world. There is emerging evidence that the UK is being left behind in this respect. We cannot allow that to happen.

*For more information about the EDUCATE project, please go to: educate.london or e-mail us on educate@ucl.ac.uk

Book Review 1

Enhancing Learning and Teaching with Technology
Edited by Rosemary Luckin - Professor of Learner Centred Design at the UCL Knowledge Lab and Director of EDUCATE,
Reviewed by Allison Allen



The exploitation of technology to maximise the pupil learning experience is a lively area of interest across all phases of education worldwide. This application of technology enhanced learning or "TEL", is often used as a synonym for e-learning but can also be used to refer to technology enhanced classrooms, and learning by means of technology, rather than just 'through' technology. The aspiration is that education technology (edtech) will help students and teachers work and learn better in the future across the diverse range of education settings. In recent years there has been a plethora of headlines offering conflicting opinion and sometimes research snippets defining edtech or TEL as the extremes of latter-day panacea or snake-oil.
The confusion is unhelpful to teachers and other professional seeking evidence-based edtech advice grounded in robust research, so it is a relief to welcome a timely new book that does exactly that! "Enhancing Learning and Teaching with Technology" is the first in a planned series of What the research says books.

Background
Edited by Rosemary Luckin - Professor of Learner Centred Design at the UCL Knowledge Lab and Director of EDUCATE, the book draws on input from a range of experts willing to review the research in the areas of their expertise and produce a succinct account of the consensus from this research, brought to life through carefully selected case studies. This community of researchers, technologists and educators had been attending a series of seminars at the London Knowledge Lab, now the UCL Knowledge Lab, with the same title: What the Research Says. This series of seminars had been designed for non-academic and academic audiences as a channel for communicating research findings for significant issues of interest to those who were using technology to support their learning and/or teaching.

Overview
Rose's persuasive message pervades the book, which aims to be an accessible introduction to learning and teaching with technology for teachers and other educational professionals, regardless of their experience with using technology for education:

> *'We must equip teachers with the skills and knowledge they need to be confident and effective users of edtech'*

The book is true to its description: Educational technology is growing fast, with schools, colleges and universities more than ever looking for the best ways to use technology to support learning. At the same time, there is an increasing appetite for learning and teaching practices to be backed up by evidence. Few resources are able to offer guidance that has been vigorously tested by research.

Now, 'Enhancing Learning and Teaching with Technology' brings together researchers, technologists and educators to explore and show how technology can be designed and used for learning and teaching to best effect. It addresses what the research says about:
- how and why learning happens and how different technologies can enhance it
- engaging a variety of learners through technology and helping them benefit from it
- how technology can support teaching.

Reviews to date
There are impressive reviews from notable people who are themselves experts in the field:

> *'This is an important and timely book for schools struggling to know what technology can help hard-pressed teachers in the classroom. It is hard for schools to know who to believe as new products are pushed at them all the time. This academic analysis answers their need.'* — **Lord Jim Knight, Chief Education and External Officer, TES, and former Schools Minister**

> *'A wide-ranging and fascinating exploration of what we know about effective learning and how the many uses and applications of technology can enhance impact. This is a must-read for teachers keen both to*

understand "what works", and to gain awareness of areas that show promise in pedagogy that seeks to embrace technology.— **Professor Dame Alison Peacock, DBE, DLitt, Chief Executive, Chartered College of Teaching**

'This is a box of delights: it draws together an exceptional range of contributions to focus what we currently know – and highlight what we don't – about enhancing learning with technology. For all the variety, the focus is strongly, as it should be, on learning. It's accessible and well-structured – a great reference source for busy practitioners.'— **Professor Chris Husbands, Vice-Chancellor, Sheffield Hallam University, and TEF Chair**

'Keeping a pace with research on teaching is exhausting. Step forward Rose Luckin and her cast of experts who guide us effortlessly through all the latest thinking on sifting through the wheat from the chaff.'— **Sir Anthony Seldon, Vice-Chancellor, University of Buckingham**

The book

The book is well-organised with clear aims and a strong focus on learning supported by pedagogical research findings. Chapters are well-written, and challenge the reader's thoughts while maintaining accessible flow. It is perfectly possible to digest this book a section at a time in linear fashion or to dip in and out of the range of interesting topics.

Enhancing Learning and Teaching with Technology is divided into six sections. Sections one and two present a set of learning principles and an account of some of the factors that influence how and when learning takes place as well as a flavour of the range of technologies that can be used to support learning. The remaining four sections of the book offer more detailed accounts of four important educational challenges that technology may help us to address: how we use technology to engage learners to learn; how we support learners to get the best from their technologies; how we can use technology to support adult learners, and how technology can be used to support teachers.

There is a helpful general introduction about how research is reported in the news by Terry Freedman.

Section 1 then, sets out seven principles to ensure learning is as effective as possible. Based on analysis by David Baume and Eileen Scanlon this introduction provides a foundation for the principles of good practice that will be relevant throughout this book. The Ecology of Resources provides a mechanism for talking about context and a checklist to help teachers and learners to design effective ways of using technology to support learning.

Section 2 looks at some of the many new ways in which technology is used to support teaching and/or learning. This section includes six chapters that provide some evidence of the potential impact of specific technologies on learning. The strong message is that regardless of the design purpose of the technologies, it is always essential to provide evidence for using technologies as part of teaching and learning.

The last sections of the book each focus on a particular educational challenge.

Section 3 explores the role of technology to engage and motivate learners and teachers.

Section 4 starts off with a brief discussion about contemporary digital capabilities and the need for learners to develop these if they are to be effective learners across different settings.

Adult learners are the focus for Section 5, which looks at ways in which technology can improve the way that educators impart knowledge to adults.

The sixth and final section of the book highlights the important role that educators play and the need for them to be the focus of attention when it comes to technology in education.

Editor and author:
Rosemary Luckin
General Introduction: Terry Freedman

Agnes Kukulska-Hulme
Alexandra Poulovassilis
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Allison Allen
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Benedict du Boulay
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Charlotte Lærke Weitze
Christina Preston
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Shaaron Ainsworth
Stuart Edwards
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Torben Steeg
Wayne Holmes

Enhancing Learning and Teaching with Technology
What the research says
Author/Editor(s): Rosemary Luckin
ISBN: 9781782772262
Published: 24 Jan 2018
Imprint: UCL IOE Press

Allison Allen

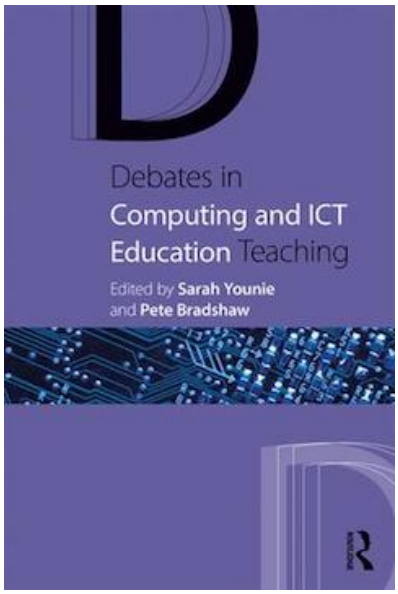
Allison Allen is Director of Outstream Consulting and has held a number of governance roles, most recently as an academy trust governor, past Trustee of Naace, London Grid for Learning and is a Senior Fellow of MirandaNet. She is joint author of several publications relevant to education technology and leads on digital safeguarding for Naace as well as being co-author of the newly revised national Self Review Framework and she is a Lead Assessor of the school accreditation ICT Mark.

Allison has a proven track record at senior level within the education sector, specialising in using education technology to enhance the life chances of children - supporting the moral imperative to develop learners who have the higher thinking skills and confidence that sustains effective, safe, innovative use and creation of technology.

Book Review 2

Debates in Computing and ICT Education edited by Sarah Younie, and Pete Bradshaw

Reviewed by Christina Preston. *7 Dec 2017*



Debates in ICT and Computing Education explores the major issues teachers encounter in their daily professional lives. The book encourages critical reflection and aims to stimulate both novice and experienced teachers to think more deeply about their practice, and link research and evidence to what they have observed in schools. The overall aim is to enable teachers to reach informed judgements and argue their point of view with deeper theoretical knowledge and understanding.
This debates book is a companion to the Routledge series, Learning to Teach with Information and Communications Technology (ICT) books that have been edited by our MirandaNet members, Marilyn Leask and Sarah Younie. New revised editions of this series have been published frequently over the last twenty years as the ICT landscape changes. Indeed, computing science has now been added to the mix to pick up the changes made in 2012. The arguments present key themes that are important for our understanding of education futures.

Whereas writing fiction is usually the creative task of one author, a factual book like this requires a different approach. To cover the full range of what is happening in classrooms at this point in time could not, arguably, be written by one professional. But belonging to a professional community seems to matter as well. MirandaNet members make up two thirds of the chapter authors, often working together on tackling established and contemporary issues. For example, Leon Cych, Lawrence Williams and Sarah Younie submitted Using Web 2.00 technologies to enhance teaching and learning subject matter that they had previously presented to a MirandaNet audience and refined. Another example is Towards tomorrow's successful digital citizens: providing the critical opportunities to change mindsets. This chapter by myself, Moira Savage, Malcolm Payton and Antony Barnett, pulls together MirandaNet and ITTE's members views on the topic shared in a MirandaMod event where we aim to create new knowledge by collating the strands of our colleagues unique expertise.

The reason for looking at the authorship of the debates book in this way is to celebrate the role of professional organisations in nurturing members' writing abilities, providing opportunities to publish and often raising members' confidence in their publishing potential. We have generally all met in conference and in the general activities of a professional organisation over many years. This is not the same kind of knowledge that is delivered by the conference circuit gurus who charge high fees to dominate a platform about their latest theories, they are often loners who arrive only to speak and leave without making contact with the delegates. This kind of edited book reflects a different approach to sharing knowledge fellowships over many years and encouraging helpful critique that makes the collaborative knowledge inside the covers worth more than gold.

The book has been divided into three parts: curriculum developments, whole school learning environments, and, classroom applications. Debates include; teacherless classrooms, personalised learning, creativity, digital literacy, visual literacy, e-tools, learning platforms, and opportunities for lifelong learning.

Every reader will find chapters that stimulate and delight. I will just pick out three authors. Firstly, in What can technology do? Chris Shelton expertly summarises the major debates and assumptions that are current in the profession today. These abstractions will help teachers to frame their arguments. In Computer studies, information technology, ICT and now computing John Woollard provides an expert critique of the way in which Computing has been introduced. Although the UK was praised widely abroad for focusing students on how technology works, John expresses concerns that the curriculum no longer offers idea about how society should exploit technology or to promote its value in lifelong learning, citizenship and community action. He fears that as a result of this short-sightedness we will be producing a generation of young people with no formal understanding of the values and affordances of technology in much of their education. How will this serve them in life? Some of these issues are tackled in another outstanding chapter by the editors, Understanding online ethics and digital

identities Sarah Younie and Pete Bradshaw navigate a difficult subject avoiding scaremongering and providing positive solutions. Most of all they advocate managing risk and modelling good behaviours online rather than avoiding all the issues through lock-down.

Any professional, whichever discipline they favour, will find much richness in this book because the authors are not afraid to confront the realities of teaching about computing and ICT in a challenging climate.

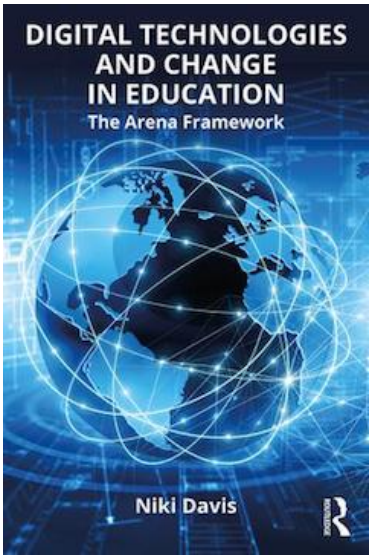
URL: https://www.routledge.com/Debates-in-Computing-and-ICT-Education/Younie-Bradshaw/p/book/9781138891784

Book Review 3

Digital Technologies and Change in Education: The Arena Framework

Niki Davis 2017 Routledge. Available from Routledge

Review by Christina Preston. *Published: 9 September 2017.*



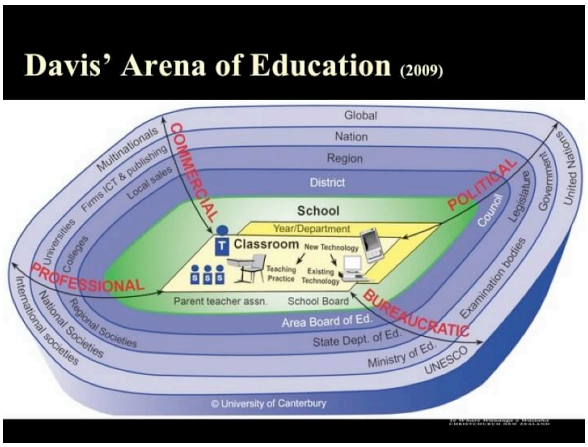
I remember in the 1990s at the start of an ITTE conference at Exeter University when we were all given a CD-ROM of the papers instead of the paper programme we had all learnt to expect. Niki Davis, who was behind this strategy, was an innovator from the start of her career.

In this book, Niki, now Distinguished Professor of E-learning at the University of Canterbury, New Zealand, generously tells her story about what she has learnt about teacher education in EdTech since the 1980s and from whom she has learnt.

What she presents in this book about her own journey are the milestones that influenced the development of her theoretical framework – the Arena. This first version of the Arena emerged after a MirandaNet gathering in London. In her final chapter Niki acknowledges MirandaNet's contributions,

"Around 2004, while Christina was engaged part time on her doctoral studies at the University of London (one of the partners in the transatlantic initiative that I was leading), she came to study abroad with us at Iowa State University for some weeks. During that time we collaboratively applied the theoretical framework that became the Arena to evidence MirandaNet had gathered for the Teacher Training Agency to evaluate its English nationwide teacher training initiative involving different models of teacher professional development (Davis, Preston, & Sahin, 2009). A critical comparison that included an Arena analysis of the least and the most successful models out of the 11 for which there was sufficient evidence appeared in Chapter 4.

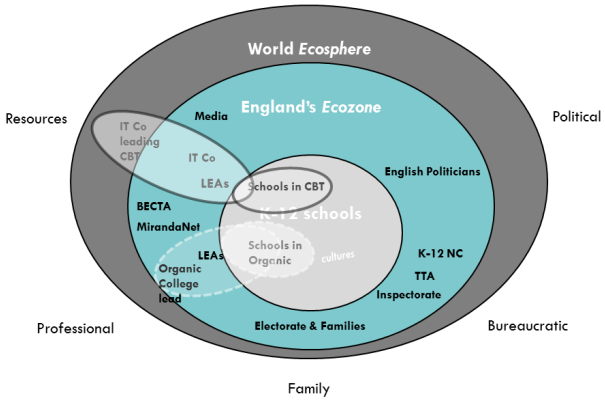
It was after this intensive collaboration that Christina invited me to lead a session at the University of London. Around that time some politicians were publicly blaming and occasionally ridiculing teachers for ineffective teaching. Of course it was the rapid changes in the world that were causing the stress globally and generating new problems in education. For this reason, the first Arena that I sketched, in collaboration with MirandaNet Fellows, playfully depicted teachers back in Roman times, where the enslaved heroes and heroines (teachers) wrangled publicly with captured wild animals (learners) in the hope of winning freedom from the emperor (politician) and his captains (bureaucrats) for both themselves and those whom they struggled to control. The Arena sketched on a large whiteboard aimed to communicate that all of the participants and systems contained within the Arena were part of the problem and also part of the solution."



In the book Niki provides many more figures of Arenas for different contexts, including schools and universities. The Arena cited in the final chapter maps two approaches to ICT professional development that were offered in England at the start of the 21st century that Niki and I researched with MirandaNet support (see Davis, Preston and Sahin, 2009 a and b). She describes this Arena as follows,

"The central oval in Figure 4.2 contains all the K–12 schools' ecosystem communities in England in 2001 because all teachers in all the schools were required to undertake the ICT training. The schools are embedded within the nationwide ecozone of England, and both are embedded in the global ecosphere. Only two consortia, Computer Based Training (CBT) and the 'Organic' approach are covered out of a total of 47 are mapped in this Arena. The influences of additional ecosystems are grouped into the five sectors of the ecosphere that are labeled around it, namely, community, professional, resources, political, and bureaucratic. Having mapped the ecosystem communities of the CBT and organic consortia onto the Arena, we can see that the CBT model has emerged and remained largely in the resources sector, which shows little overlap with the schools of the teachers

participating in this training model. The organic model, however, has emerged from the professional sector and has a large overlap with the ecosystem communities of the schools whose teachers participated in this model. …"



Davis CC BY-SA 3.0

The Arena depicting all the K–12 schools in England at the center, set within the global ecosphere when the national ICT teacher training initiative was underway in 2001.

Key to diagram: BECTA, British Educational Communications and Technology Agency; CBT, consortium led by IT companies is within the black solid line; LEAs, local education agencies; K–12 NC, English national curriculum; MirandaNet Fellowship; organic consortium led by teacher education college is within the white dotted line; TTA, Teacher Training Agency. This tool is intended for our professional exploration and analysis of our own experience of teaching, leadership and research. Niki tells the story of her learning journey through case studies and research evidence in which she has been involved. As the Arena has developed over the years I have found this framework immensely valuable in understanding the local, regional, national and global forces that impact on edtech professional development project.

Through her collaborative approach, she first had a significant influence on the MirandaNet Fellowship vision in the early 1990s when she worked in the UK with Professor Bridget Somekh on 'action research'. The book they published in 1997, Using Information Technology Effectively in Teaching and Learning, was a game changer in the MirandaNet vision of pedagogy and change strategies (Somekh and Davis 1997). Although 'action research' has now become 'practice based research' we still use this method of professional develop to help schools and teachers focus on understanding the impact of digital technologies in classrooms and to engage teachers in change. Perhaps the most important message is her confession that in the early days she was, like many of us, blinded by the glitter of new technologies and did not have a sophisticated understanding of commercial marketing policies. The role of educators in presenting a balanced view grows in importance as governments, democratic or otherwise, hand over edtech policy and training to commercial interests when they offer to fund the enterprise.

A key learning opportunity was as a founder editor of ITTE's Technology, Pedagogy and Education journal (http://www.tandfonline.com/loi/rtpe20) which is now an internationally rated publication edited by Professor Sarah Younie. Since those days at Exeter University, she has influenced the global stage as a Professor in Iowa, US, and now in New Zealand. The MirandaNet Fellowship is included in an impressive list of global communities and leaders where she has left her stamp including ITTE and UNESCO. Niki lead a symposium with leaders she has worked with at the WCCE conference in July in Dublin that I referenced in the MirandaNet September 2017 newsletter.

In every professional community, local to global, there will be a great leader, like Niki, who leads change with empathy. But these leaders do not all write their experience down so busy are they promoting achievement. I commend Niki for influencing change herself, but also for making sure that we have a tool to use to replicate the change process. She makes it clear that it is not about what we are teaching but about how we take others with us.

This is an important book. If you place yourself in the professional edtech community, you should read it!

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Book Review 4

RiskITWeek, IT in the Classroom, A Risk Worth Taking…

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RiskITWeek, IT in the Classroom, A Risk Worth Taking…
Pub: Independently published (2017)
URL: https://www.amazon.co.uk/RiskITWeek-Classroom-Risk-Worth-Taking/dp/1973594609/

Reviewed by Allison Allen

RiskITWeek is a philosophy, a calculated risk and a tool that virtually guarantees a 'win' for schools, their pupils and teachers! Is it easy? – It just requires commitment to effective CPD from school leaders.

This book "RiskITWeek – IT in the Classroom A Risk Worth Taking" provides the necessary knowledge, advice and strategy to make a success of risk-taking, discovery and innovation without fear.

Abderrahmane (Ben) Benjeddi offers this book as a guide to the strategy. It is written with a joyfully light touch and can be read cover to cover or by dipping in and out of the sections of most interest. Seasoned with helpful, robust, education research, the book is full sage advice born out of experience and real-school practical suggestions. Not to be missed are Chapters 5 and 6 about implementing and embedding ICT in the classroom – these chapters are full of really good examples of ICT across all kinds of curriculum areas!

When I first became aware of RiskITWeek, the idea immediately got my attention – I knew so many teachers who were apprehensive of using technology in their subject – frightened that they would look foolish in front of pupils who had grown up with computers or frankly, scared the tools would stop working.

Even now that there is so much focus on the new UK Computing curriculum, many teachers receive training on coding but not in the wider aspects and skills of using education technology. RiskItWeek is a pragmatic idea based on simply providing professional and technical support to teachers without negative criticism. What makes this 'doable' and transferable to any school is the strategy – where teachers take a risk and use new technology or innovate with technology in a culture of support where people learn from each other and celebrate the process made visible.

I wish RiskITWeek had been invented when I was ICT Coordinator! Don't wait – this little book is a life-changing opportunity for the whole school community.