

NAACE

THE EDUCATION TECHNOLOGY ASSOCIATION



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Emerging from the pandemic lockdown

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As we embark on what would, in normal times be called the summer holidays for schools, it is worth considering what has happened in the last five months and how it has affected our schools, pupils and staff. It goes without saying that Naace would like to thank all key workers who have kept us all safe, well and supplied with food, medicines and health care throughout this period, but also we need to thank the staff in schools who gave up Easter holidays and half terms to support pupils. Many of these members of staff in school will be Naace members so thank you!

The effects of learning being delivered in a variety of ways and under a multitude of terminology have yet to be analysed in any depth. It is clear however that there are effects and lessons to be learnt by all members of the community from government, through to pupils and these are going to take some time to decipher. As start to this process Naace is beginning the analysis of its surveys for teachers about the implications of the Corovid19 pandemic to them and their schools. Look out in the next edition of the Journal and on the Naace web site and social media feeds from October, for the beginnings of the analysisI think it will make very interesting reading.

Phil Blackburn

Chair Naace Board of Management

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Emerging from the Pandemic lockdown

Editorial

Dear Naace members

The Pandemic

Any publication in these troubled times is bound to mention the impact of the pandemic on our education system. So we open the journal with an opinion piece from Sarah Horrocks about the ways in which we can reduce the digital divide. From her perspective as the director of the London Connected Learning Centre, she reports that the UK's digital divide has never seemed so stark, and its implications so far-reaching, as in recent weeks when schools have had to move their teaching online for the majority of pupils. Distance learning became the norm and may continue to be so to some degree even when all students return to the classroom, Sarah continues, so access to the right resources to learn has been crucial – and lacking.

The lack of digital facilities at home has created challenges in completing school work at the best of times and the Covid-forced moves towards more extensive remote learning, though necessary, have only exacerbated the problem. It is not simply a matter of some children having access to iPads or laptops and others not – though that is fundamental – it is also about access to software, data (particularly if internet access is via a mobile phone), how many people in the family need access and whether parents or carers have the knowledge to support remote digital learning.

Meanwhile Dr Chris Yapp and Sue Riley, representing NACE, talk about new landscapes for schools acknowledging that the return to school after the pandemic will be uneven and difficult. They acknowledge that over the last few weeks many teachers have been experimenting with technology to try to maintain access to education for students during the lockdown. They have found innovative practice in the schools they have been conferencing with as well as a willingness to share ideas and practice between individuals and schools. What emerges is that online learning and online teaching are quite different. Some children thrive on the autonomy but others need much support, as is true in the classroom setting which is why they argue for building teachers as confident learners with technology as a precursor to students becoming confident learners.

The way to build the teaching professions into a confident technology enabled, not driven, profession, they suggest, is to build communities of teachers on and offline to share peer to peer the development of new and innovative practice at scale. They end the article with a series of suggestions and invite Naace members to get involved.

Professor Christina Preston



Professor Christina Preston has been at the forefront of education and technology for over 25 years. She has

been a member of Naace since the 1980s and is the editor of the Naace Advancing Education journal. In 1992 founded The MirandaNet Fellowship whose members have become global thought leader in EdTech with over 1,400 members in 80 countries. At the core of the members' philosophy is the sharing of knowledge and change management based on grass-roots evidence and research. The members work with EdTech companies to research into the impact of technology and learning in classrooms and report on their findings for the global community. Christina has won 5 international awards for her contribution to education innovation and community of practice development. international awards for her contribution to education innovation and community of practice development.

EdTech Practice

The next three articles cover curriculum areas with ideas and resources that will help everyone coping with the New Normal. Myles Pilling, a Specialist SEND ICT Consultant and a long time Naace member, explains how he has been supporting his nieces and nephews during lockdown in common with many generous relatives who have the know-how. Myles, as an ex-teacher and still a practicing consultant and assistive technologist, was supporting people in need of help using mobile devices and wifi. In particular, he was working with older people in church so they could access meetings to producing a weekly live event on Facebook every Friday. The session, called "Techsavvy", enabled people to find out how to make full use of the devices they had at home. But then, after a chance call to one of his nieces, he offered to do a weekly teaching session to her two children, 9 and 5, then his nephew's children, who were 8 and 4 joined in. So Myles explains how he used a weekly slot on Zoom to enhance what the schools were offering, although one family were home-schooled already. His idea was to use the technology to provide learning experiences that they could relate to. Here he explains what transpired.

Sal McKeown, from Digital Learning explains how the package, Inanimate Alice – digital tales for our times, came to be developed. According to UNESCO, one-fifth of refugees have been displaced for 20 years or more and are without education. They say: 'Without urgent practical assistance, some of the children left without schooling worldwide due to the coronavirus, may never set foot in a classroom again. We must find ways to try to ensure access to continuity of education for young people across the world, recognizing the sheer scale of the challenge.'

Sal describes the coalition UNESCO have built under the banner #LearningNeverStops. Part of their remit is to encourage conversations about the best distance learning materials. One of the resources that has been mentioned several times is a digital novel called Inanimate Alice, a work in progress that Sal has been following for more than ten years. Here she tells us more.

Good to know that not all initiatives have stopped for the Pandemic. Indeed, many of the co-operative EU projects that have a long development phase are now providing much needed resources. Another project funded by the European Union has continued to function. Dr Helen Caldwell and her team are one of the partners developing, Digital Learning Across Boundaries: Using technologies to support changemaking in an international context.

The team shared just one out of four strands of the Digital Learning Across Boundaries (DLAB) Erasmus+ funded project explored in 2019/2020. The overall theme was 'crossing physical boundaries' and this strand was based on a subgroup of Danish and English teams of university lecturers, teachers, student teachers and Year 7 pupils working together on the theme of 'exergaming'. The idea is exergaming is particularly appealing to young people and there have been many success stories including the Wii Fit, the Nintendo Switch and Xbox Kinect. Of particular note was the Pokemon Go phenomenon in 2016 which brought augmented reality (AR) to the masses almost overnight. With this background the team were keen to explore the potential for virtual reality (VR) and AR in combination with other technologies to enhance the exergaming experience and provide a motivating medium for children to invent innovative solutions to problems they identified and cared about. This piece explains what happened in the project.

EdTech Theory

The large majority of Naace members are 'doers' who are expert in the practice of education technology in teaching and learning. But this does not preclude them from taking an interest in the new pedagogical theories that are being published in this fast moving field. Drawing on their editorial for a special edition of the Technology, Pedagogy and Education Journal (Routledge ?P) Cristina Costa, Michael Hammond and Sarah

Younie explain the latest methods for theorising technology in education.

This article has stemmed from an awareness amongst academics of shortcomings in the field of education technology research that will interest Naace members too. At the outset they recognise that there is much to be celebrated in our field. For example in terms of methodologies and frameworks, research is comparatively free from the 'one size fits all' approach that characterises some disciplines and researchers are often open to innovative methods (for example analysis of digital archives) and new methodologies (for example design thinking as a way of understanding the user participation in creating new technological tools). Indeed, its very novelty offers those researching technology the freedom to develop new approaches, and these can include innovative interdisciplinary ones. Another strength of educational technology research is its concern to exchange experiences with practitioners and often a deep-seated desire to inform practice.

However, in order to make progress, the authors tackle the fact that there is no getting away from the complaints made about the education technology literature and criticisms that include: over-determinist approaches; binary categorisations; excessive romanticism; overly descriptive outputs; a lack of engagement with decolonising methodologies; and too little theorisation. These are important issues that Naace members should be aware of in developing our plans for teaching and learning, particularly in online materials that have now been forced on teachers' attention. The profession has been offered little training in this field so the article should provide a welcome outline of the issues.

We have followed up with some book reviews that perhaps can provide some summer reading..but we have been less confident about events. We are however making plans for BETT21 at the Excel Centre in London, where we hope to see you on our stand in person.

Yours sincerely,

Dr Christina Preston

Visiting Professor of Education

The Pandemic

The digital divide exposed

Sarah Horrocks, Director, London Connected Learning Centre

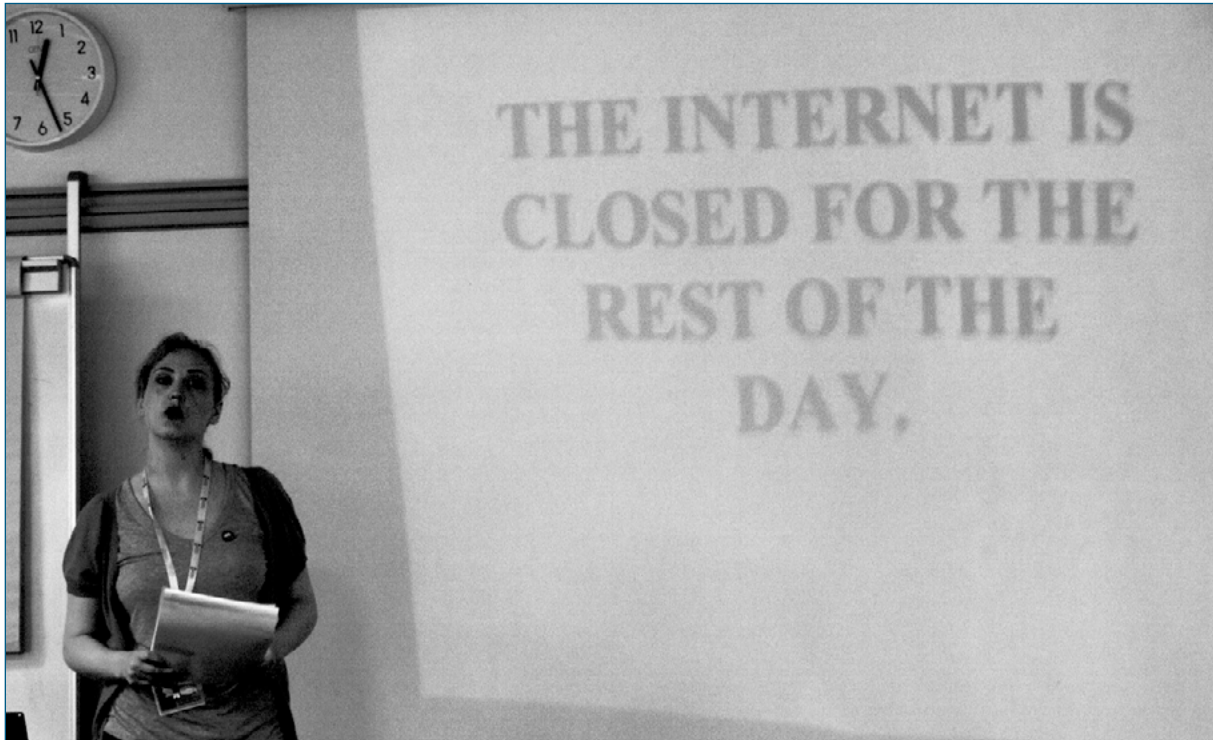


Image Credit: Sam Easterby-Smith: CC BY NC

The UK's digital divide has never seemed so stark, and its implications so far-reaching, as in recent weeks when schools have had to move their teaching online for the majority of pupils. As distance learning became the norm, and may continue to be so to some degree even when all students return to the classroom, access to the right resources to learn has been crucial – and lacking.

We know that an estimated one million children and young people and their families still don't have adequate access to a device or connectivity at home (Nominet Trust Digital Access For All Feb 2019 report) with 11% of young people unable to access the internet at home with a computer on a broadband connection. A further 6% connect to the internet via dial-up modems (a technology that is now two decades old) and 12% of young people cannot use these devices at home at all.

It causes challenges for completing school work at the best of times and the Covid-forced moves towards more extensive remote learning, though necessary, have only exacerbated the problem. It is not simply a matter of some children having access to iPads or laptops and others not – though that is fundamental – it is also about access to software, data (particularly if internet access is via a mobile phone), how many people in the family need access and whether parents or carers have the knowledge to support remote digital learning.

And it doesn't only affect pupils. A [survey](#) of NASUWT members' experiences of teaching in the period immediately following lockdown found that 36% said they had not been provided with the IT equipment they needed to work from home.

For teachers, it is not just access to technology but also the digital skills that are crucial to being able to use the tech effectively. As last month's report from the Education Development Trust on [Best practice in pedagogy for remote learning](#) notes, "many teachers need professional development support in the use of technologically enhanced pedagogy".

The impact

Research into the impact of the digital divide has been coming thick and fast, and it all points in the same direction. Education Endowment Foundation (EEF) [research](#) finds that school closures are likely to reverse progress made to narrow the attainment gap between disadvantaged children and their peers in the last decade. A [Sutton Trust briefing](#) reveals that 60% of private schools and 37% of state schools in the most affluent areas already had an online platform in place to receive work, compared to just 23% of the most deprived schools. In the most deprived schools 15% of teachers report that more than a third of their students would not have adequate access to an electronic device for learning from home, compared to only 2% in the most affluent state schools.

New [UCL research](#) finds that children locked down at home in the UK spend an average of 2.5 hours each day doing schoolwork, about half that suggested by an earlier survey, implying that learning losses are much greater than previously thought. The study shows one fifth of pupils, which is the equivalent of two million children in the UK, did no schoolwork at home, or less than an hour a day, while 17% put in more than four hours a day. A large proportion of children on free school meals – 20% – have no access to a computer at home. This compares with 7% for other children.

The [Child Poverty Action Group found](#) that the cost burdens of school closures have fallen most heavily on families already living on a low income, with those families twice as likely to say that they lacked all the resources they needed to support learning at home and 40% saying they were missing at least one essential resource.

If all the research findings are painting a very similar picture, the recommendations that emerge also have a similar focus. As the Sutton Trust's first recommendation puts it: "While schools are closed, the government should help ensure all children have the resources necessary to access online learning." So far, the government's programme to provide laptops to particular categories of pupils has proved to be a disappointment to headteachers and has been [criticised](#) for being too little, too late and too slow.

Connecting with families

At London CLC we advocate a very nuanced approach and we've produced an [Essential Guide to Remote Learning](#) for schools, in which the first step for schools is to talk to parents and find out whether they have an internet-enabled device their child can use at all, if it's only via a phone and if it's only for brief periods or longer. That gives them a starting point to plan - whether that's lending devices and dongles or printing packs of paper-based activities. Even a brief amount of internet access opens up a lot of possibilities, from activities and blog posts on the school website to tools such as Padlet and pointers to short educational YouTube videos. We've produced guides to using both [Padlet](#) and [YouTube](#) in safe and effective ways for remote learning for where families have adequate bandwidth (see the bandwidth matrix below).

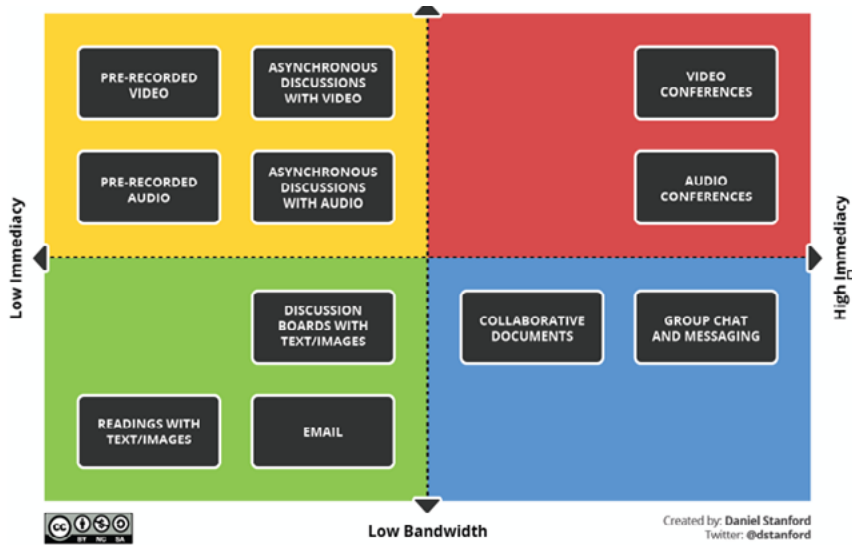
Families may be social distancing and even self-isolating but we are all dependent on our communities and connections like never before. We urge schools to find every way possible to make staying connected to families their priority. It's one of the key points pupil premium advisor Mark Rowland emphasises in his excellent blog post, [Distance learning through the lens of disadvantaged pupils](#). "More than ever," he says, "we need to work together and maintain strong relationships, especially with those families that have found

engagement with school life more difficult.

Low bandwidth strategies

Then it becomes possible to work out strategies to support families with remote learning. Get communication channels going, which may be through the school website or a messaging system such as School Ping, or even through face-to-face contact with the most vulnerable children who are receiving some childcare in school. Then devise ways to put support in place, whether that's through wifi dongle and laptop loans or encouraging digitally connected parents to support other parents.

Think about low bandwidth, lower immediacy alternatives to any activities that require high levels of technology and data, such as video. Daniel Stanford has created a 'bandwidth immediacy matrix' that is well



worth a look.

The right tools for the right reasons

Reassuringly for teachers struggling to produce resources suitable for all circumstances, he emphasises the power of the low tech 'underappreciated workhorses' in the green quadrant:

"Online instructors have been using these three tools – file sharing (for readings and such), email and discussion boards – for decades. And while that might make them sound boring, you can create some fantastic instructional experiences with just these three tools."

As he rightly concludes, "seemingly small (and sometimes unconscious) choices about the technologies we use can have a big impact on how inclusive and effective our teaching is. The more aware we are of this, the



Sarah Horrocks

Sarah is the director of London Connected Learning Centre, which supports schools and educators in all aspects of digital technology. Sarah was previously a primary teacher and deputy headteacher. She now oversees the centre's programme which includes research, digital strategy, developing teachers' competencies, involving young people in creative use of digital technologies, supporting families' digital skills and making partnerships between schools, businesses and cultural organisations. Sarah's team is made up of teachers, multimedia specialists, family learning tutors, filmmakers, and technicians.

The New Landscape for Schools

*Dr Chris Yapp, Patron, NACE (National Association for Able Children in Education)
and Sue Riley, CEO, NACE.*

The pandemic has led to significant experimentation within schools to sustain access to education throughout the lockdown. There are many examples of rapid progress being made. However, the digital inclusion challenges hold many schools back raising concerns over a widening achievement gap. 2021 will mark the 25th anniversary of the Blair speech line “Education, Education, Education”. If we are to embed technology in the long term into schools to raise achievement for all students and to develop all teachers’ practice and confidence with the use of ICTs, what is the vision we are building toward?

We know that many Naace members will have been experimenting with technology to try to maintain access to education for students during the lockdown. We know that schools, starting from a point of necessity, are now growing in confidence, and emerging from lockdown with more clarity around the place and value of technology. We see centralised projects like EdTech Demonstrator, Oak National Academy and DfE case studies.

At the beginning of the pandemic and throughout, NACE brought together practitioners and senior school leaders to provide peer-to-peer support around this topic, to share views and encourage collaboration.

In NACE’s ‘reimagining education’ webinar held earlier this term, Chris, who has been involved in technology in education for more than 30 years offered some observations that he hopes will help us all move forward to whatever the New Normal may turn out to be. We share some of these in this article, alongside schools’ perspectives before suggesting how schools, advisers and academics could work together next term on this vital topic.

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Chris notes, “a common mistake throughout the years has been to believe that the children are so confident with the technology compared to the adults. As a result of this belief some teachers are reluctant to use technology for fear of looking foolish. However, five years ago we attended a presentation of a study on first year undergraduates that came to an important conclusion from teachers’ point of view: just because young people are very comfortable with technology, that does not mean that they are comfortable with learning through technology. Learner confidence is best developed by thinking about LEARNING technologies, not learning TECHNOLOGIES. That is true for teachers too. In our experience 3-5 years is required for most teachers to develop full confidence in deploying technology as a learning tool, both in the classroom and increasingly beyond the school. That is why building teacher confidence lies at the heart of creating new practices that will be needed now and beyond the COVID19 pandemic”.

We can illustrate part of that challenge from 25 years ago. Chris describes his first schools’ conference on technology in learning in Hull with a local telephone company, Kingston Communications.

“Despite being a poor city, it had better connectivity than elsewhere in the UK at that time. After my talk,

a young Primary teacher came up to me and gave me an example of what I had talked about. She had a shy 8-9-year-old girl who was nervous in class and sometimes difficult to engage. She had been off ill while they had been doing a project on a topic (from memory Egyptians). The girl returned on the final day of the work. Much to the teachers' surprise the girl volunteered that she had done the work while she had been off sick. The teacher asked if she could see it. The girl said sorry, it was on her home page. The teacher said, that is OK, bring it in tomorrow. The girl said no and offered to take the teacher to the library which had a few internet connected terminals. That happened, and the teacher discovered a multimedia project of rich detail, beyond what she thought the girl was capable of, sitting on the girl's home page in her Dad's work room. So, she asked if her parents had helped. She got a firm no. Her Dad was a computer engineer and they had a significant set up at home that the girl could use, while her Dad was away. Her Mom was not interested in computers. The teacher had become upset because she saw it as her failing that she had underestimated the capability of this pupil and wondered how many others she had let down".

We have heard many similar stories. The main view has been that online learning and teaching are quite different from each other. Some children thrive on the autonomy, others need more support online just as is true in the classroom setting. Chris commented, "You may have had surprises yourself recently or will encounter them over the coming weeks and months. That is why I argue for building teachers as confident learners with technology as a precursor to students becoming confident learners. When you have such surprises, IT IS NOT YOUR FAULT.

To build the teaching profession into a confident technology enabled, not driven, profession my take away message is that we need to build communities of teachers on and offline to share peer to peer the development of new and innovative practice at scale". Key issues identified by headteachers and classroom practitioners

As you might expect, schools' starting points and early conclusions around technology in the pandemic were very varied. Some were able to embrace the potential early on, others felt overwhelmed with the options and were concerned around how to curate and quality assure opportunities. Many saw this time as one where staff could benefit from their own online CPD. Equality of opportunity remains an ongoing concern.

Different teachers and different schools have for 30 years found themselves in quite different stages of development when it comes to using technology as a tool in teaching and learning. The crisis that we are living through gives us a chance to "level up" and enhance the profession to support our learners. But this will not be quick, nor cheap.

Some of the key issues we saw early on focused on:

<p>CPD</p>	<ul style="list-style-type: none"> • Need time to explore "what's out there" - so many different platforms. • Guidelines which "cherry pick" the best of what teachers are using with live examples • Instructional guides for pupils • Staff CPD had changed dramatically using remote platforms. Staff were able to access live CPD, as well as recorded options in their own time • One school had developed a CPD channel through Teams, allowing staff to share remote strategies and resources that were working well whilst providing a narrative for these.
<p>Workload</p>	<ul style="list-style-type: none"> • Many teachers have found that on-line learning has enabled them to cut their workload and make marking and feedback more effective (in particular 'Rubrics' 'Seneca' 'See-Saw')

Parental engagement	<ul style="list-style-type: none"> • Meeting with parents on-line instead of parent evenings • Possibly working more with parents to develop how to better support their child's learning as they are now more receptive to this • Using Apps like SeeSaw where parents can give instant feedback on how their children are managing homework/classwork.
Independent learning / flipped learning / collaboration	<ul style="list-style-type: none"> • Building on the realisation that pupils can work more independently than previously realised - giving them more opportunities to work at their own pace - using flipped learning • Using remote learning platforms to promote 'flipped learning' strategies was thought to be beneficial, allowing teachers to then focus in on the areas children found difficult. Key questions were shared with students in advance of the lesson and, based on the responses, bespoke teaching could take place with 2 teachers and a maximum of 16 students • Teams was being used to promote independent and collaborative learning beyond school. It was also being used to develop home learning for Years 12 and 13. These strategies were being developed further so that they will continue when learners return to the classroom
Homework	<ul style="list-style-type: none"> • Comments were made that setting of homework had now improved e.g. voice over Powerpoint. Homework making use of technology can provide richer resourcing to enhance the curriculum.

The value of professional communities

Innovative practices in the schools involved in these sessions were praiseworthy, but the willingness to share successes and failures across the profession stands to have greatest impact: the best way to develop teaching practice is teacher to teacher communities of interest. Learning from peers about what works for them and adapting it to your own circumstances stimulates personal development and innovation. In contrast, tablets of stone from the great and good are at best blunt instruments.

Join the debate – shape thinking in next term's webinar

Next term Mirandanet, TPEA and NACE will be hosting a joint webinar when we will look at the long term research and practice that can inform the leadership teams in all stages of education to build 21st century learning environments. The session will be opened by NACE patron, Chris Yapp and include opportunities for wider discussion, views and planning for development. Watch this space for more detail coming soon.

National Association for Able Children in Education (NACE), the UK's leading independent charity dedicated to improving provision for more able learners works with schools across England, Wales and internationally. Find out more.



Sue Riley

NACE CEO Sue Riley has over 25 years' experience in education, charity and local government. She has worked in and with schools and colleges, leading and facilitating the development of curriculum, career, enrichment, learner support and teacher development services. She has run a successful Education Business Partnership, one of the first in the country to gain the Award for Educational Business Excellence. Sue is passionate about collaboration in education; this is a central focus of her work with NACE, bringing together schools, MATs, alliances, national bodies and other partners to develop policy and provision that supports learners aspire and achieve.



Chris Yapp

Chris Yapp is a Futurist with a long term interest in education and technology. He is a Fellow of the BCS and the RSA. He is a patron of NACE and a member of mirandanet.

Edtech Practice

Supporting children during lockdown

Myles Pilling, Bath Spa External lecturer, SEN Consultant

Since Lockdown began, as an ex-teacher and still a practicing consultant and assistive technologist, I have found ways to help support people from mobile devices and wifi to older people in my church so they can access meetings, to producing a weekly live event on Facebook every Friday called "Techsavvy" to enable people to find out how to use their devices.

A chance call to one of my nieces which led to an offer to do a weekly teaching session to her two children, 9 and 5. After a few weeks we included my nephew's children - 8 and 4. So began a weekly slot on Zoom. This was to enhance what the schools were offering, although one family were home-schooled. But the idea was to use the technology to provide learning experiences that they could relate to.

I worked out a scheme of work on a week by week basis as at that stage we had no knowledge of how long this would last. The first thing you notice is that working remotely, once the children leave the screen you do not have their attention and class control becomes difficult! But that wasn't too difficult as I worked on a menu of learning that gave variety. One week I did a bike adventure using Prezi as the tool that showed where I had been on a daily bike ride. Problems were encountered though using video content as the streaming at the other end (they live in a rural area) kept dropping. I then used the best 3.00Ghz equipment and that helped, although singing and talking over each other keeps happening. With children that is going to be the case anyway.

The visualizer was used to great effect though I found the in-built microphone, which couldn't be switched off, created echo on the Zoom call. But the microscope science activity did work and they were able to recognize objects in a game of What's This. We talked and demonstrated the use of Microscopes on that call. In later calls I dropped the visualizer in favour of another webcam and attached to a tripod. The webcam had the standard camera fitting which I could fix to the tripod. So we did games they were not familiar with, like the Kim's memory game where you show 12 objects in a downwards view and place a sheet over them and remove one object (out of camera view so no cheating occurs!). It was good for demonstrating a process like paper folding activities in the art lesson.

In Art and Maths we used Oak National Academy which contained lessons that were well structured. The advantage for children with special needs is that the lesson can be stopped and played back again. I didn't use all the material as the children would lose concentration but kept showing short clips and then doing the activity to keep the interactive levels up. Also the pre-lesson material was good and for parents this provides a useful structure for doing work at home.

Perhaps the most satisfying lesson from the children's point of view was the creation of their own storyboard book which gave them pre-set artwork and layout and then we concentrated on the story. Quite expensive though - £64.00 to have the books printed out which being a good uncle I did as a present to them. The parents appreciated that!

So what lessons were learnt from remote teaching?

- You can do a lot of things remotely except be there physically!
- Have two web cameras so you can switch easily from your face to the object, activity you are doing.
- Anticipation songs work quite well over the internet as real-time synchronization of music is difficult

to delay in the signals. Those videos of choirs singing in unison is post processed.

- By anticipation songs I mean number songs like “10 fat sausages,” or “ I know an old lady who swallowed a fly”
- Resources that worked – SWFL Myths and Legends, BBC Horrible Histories (a big hit) and Youtube clips
- Resources that didn’t work so well. Activities with too much content involving long processes were not popular. For this age group best to do an activity in front of them and then give them a task to do and report back at the end. Basically, good teaching.
- In planning sessions with parents send a message to them the day before. Ensure if any resources like cellotape or paints, or coloured paper are available or not
- Always send the Zoom meeting details a bit before the session as an aide memoire. All calls were attended at the right time.
- 1 hr seemed a good and useful time from the teaching time point of view leaving them with activities they could carry on when they had completed.
- Children with special needs need to be kept engaged so changing the activity, voice tone and getting attention by interaction is key – hence Kim’s game, the songs and the aerobics we did to lively music. Amazing what you can do from the waist up in physical exercise!

In Conclusion

The 12 weeks doing this have been fun and exhausting as I am retired and need frequent breaks but the children (who knew me) wanted it and I now have invites to go fishing, sleep in a bottom bunk (might pass on that) and play aquatics tag in the paddling pool!

The surprise was how the screen did keep them focused. But parents were needed for the 4 and 5 year old. Younger children will find this harder than older children to keep on task. Also using one device between two meant that sibling rivalry was a problem from time to time. As long as pace and change in voice tone are introduced, keeping going was not an issue.

Will remote learning be a feature in the future for schools? It certainly is possible from my personal experience but the planning and preparation is key. Many schools have been doing remote teaching as part of the daily curriculum to share expertise across a federation of academies. Those that did do this before Covid19 have led the way. Perhaps one of the upsides of all this is that it will demonstrate to schools that it can be done and most importantly, if this ever happened again, should be done. Maybe we should try out online curriculums mixed with face to face curriculums?

Session	Teaching Points	Outcome
Guess the animal	Recognise different animals by sharing drawings	JJ drew some animals for me to guess
Bike Ride	Follow photos and videos about journeys and choices	Videos stuck but they did enjoy the content for a while. Maia got fed up!
Maths	Aerobics was a hit. Look at part and whole. Found part and whole in Oak Academy content	Shortened down the content to make it more accessible for the mixed ability group

Session	Teaching Points	Outcome
Science (& Music)	<p>Guess the material game https://www.bbc.co.uk/bitesize/articles/z6kdwty</p> <p>Looking at materials and the natural world under a visualiser.</p> <p>Songtime : "Let it Go" mime to the song as well as sing it. " I want to be like you." (Jungle Book) Have some instruments to demonstrate sounds - name game.</p>	<p>Shortened down the content to make it more accessible for the mixed ability group</p> <p>Able to look at objects through the visualiser but the power lead was not plugged in so jerky to them</p> <p>Songs went down well. And singing together albeit random noise. Kids spoke more with each other has had difficult with sound at the beginning</p>
English - story writing	<p>Kims Game - 10 objects to see and guess which one is taken away - use the visualiser</p> <p>Storybird - writing a story about a dinosaur who was sad... Why was he sad? What can happen to cheer him up?</p> <p>Artful Storytelling</p> <p>Make up a song about him . Sing " If your happy and you know it</p>	<p>Kin's game kept attention. Story bird was fine for Leo. JJ liked StarWars book.</p>
Time Capsule	<p>Going to do a writing exercise from Twinkl that may be of interest about writing/drawing to your future self</p> <p>https://www.twinkl.co.uk/resource/coronavirus-time-capsule-resource-pack-t-tp-2549605</p>	<p>Went well and the enjoyed the scavenger hunt. Next week Geography</p>
Geography	<p>Only Leo & Maia so concentrated on drawing and pictinary game to start with</p> <p>Located where they are . Looking from different perspective - Google Earth - and seeing where I live and where Colin & Ann live in Edinburgh</p>	<p>Kept on track today with having just two children. More easier to keep Maia engaged. Music did that and the drawing also. Next week craft!</p>
Arts & Craft	<p>Make something together using simple materials. Leading each step of the way</p> <p>Find a task using paper or card. Glue and scissors.</p> <p>https://www.youtube.com/watch?v=ob50Dirr-eGY</p> <p>Strips of coloured paper Straws Toilet roll paper Glue - PVA or Pritt or UHU Scissors</p>	<p>The activity went well and all the children joined in. Trees were made and the steps followed with my direction. A successful session,</p>
Textured Treasure Hunt (Frottage)	<p>Continuing the Art Theme we will be using Oak Academy on the following link :-</p> <p>https://www.thenational.academy/year-3/foundation/texture-treasure-hunt-year-3-wk4-5#_Needed:-</p> <p>A4 Blank Paper Pencils Crayons Black felt tip marker (optional)</p>	<p>This held attention and work was produced.</p>
Maths	<p>To recognize parts that are equal and parts that are not</p> <p>https://classroom.thenational.academy/lessons/to-recognise-parts-that-are-equal-and-parts-that-are-unequal/</p> <p>Activity songs Kim's Game</p>	<p>Difficult session for Ruby but she regained and rejoined by the end. Leo went as always one step further with the skill. JJ was right on it though so extremely useful for him on some concepts he didn't know.</p>

Session	Teaching Points	Outcome
History	<p>Find something out of horrible histories that we can explore</p> <p>Object/subject from the era. To describe and discuss how it was used. Show a photo of it. Research it.</p> <p>Horrible Histories Series 3 Episode 4 Stuarts, Middle Ages, Romans, https://www.bbc.co.uk/iplayer/episode/b011qmrz/horrible-histories-series-3-episode-4</p> <p>Hygiene : Why did poor people not wash in the middle ages? Hygiene timeline https://docs.google.com/document/d/1HH_zuJbxu33K5TdXhjvjvJ2weEs05j-B7oBtjz4huY-w/edit?usp=sharing</p> <p>Pinterest - Hygiene https://pin.it/1kQVZ4X</p>	<p>Loved the horrible histories!!</p> <p>Wanted more and more. They did engage with drawing picture of their favourite less engaged with the factual bits. But JJ and Leo ganied from that. Encouraged them to look up the pictures on pInterest I sent through.</p>
Myths & Legends	<p>Classic fairy tales and more unusual local ones SWGf: learning website and another schools site - not sure what it is called. https://www.youtube.com/watch?v=XOkEx-Tq2uf8</p> <p>Myths and Legends http://myths.e2bn.org/</p> <p>"The Gurt Wurm" http://myths.e2bn.org/mythsandlegends/view_myth.php?id=1852</p>	<p>Both fairy story and The Gurt Worm of Shergold Forest went down well. Kept the stories to 5 minutes and did in serial sequences. I couldn't have the video panel on in zoom as it blocks areas of the screen. I asked them to find an object and write their own myths about it which did work and they drew and made up their own stories which was brilliant.</p>

References

Zoom Pro - can be done with a basic account but only for 45 minutes at a time. Not condusive to hour long meetings.

Covid19 Resources from government - <https://www.gov.uk/guidance/remote-education-during-coronavirus-covid-19>

Prezi.com - interactive presentation tool which is not a powerpoint.

Oak National Academy - <https://www.thenational.academy/>



Myles Pilling

Myles Pilling, BA, MA, has over 30 years teaching and advisory experience. He works as a Specialist SEN&D ICT Consultant providing assessment, training and strategy to a wide range of settings. He worked for mPowerNet doing face to face NOF training. He is council member of the British Assistive Technology Association (BATA). He is also an external lecturer and researcher for Bath Spa University.

Inanimate Alice – digital tales for our times

Sal McKeown, Editor for *Digital Learning magazine*



'Unprecedented' – we have heard the word every day since coronavirus struck but the news that millions of children are out of school is nothing new. Even before the pandemic, 258 million children worldwide were out of school and the knock-on effects have been documented.

An article by Angelina Jolie and Audrey Azoulay in Time magazine on March 25 2020 analyses the consequences: 'When schools shut down for more than a few weeks, early marriages increase, more children are recruited into militias, sexual exploitation of girls and young women rises, teenage pregnancies increase, and child labor rises.'

According to UNESCO, one-fifth of refugees have been displaced for 20 years or more and are without education. They say: 'Without urgent practical assistance, some of the children left without schooling worldwide due to the coronavirus may never set foot in a classroom again.'

'We must find ways to try to ensure access to continuity of education for young people across the world, recognizing the sheer scale of the challenge.'

They have developed a coalition under the banner #LearningNeverStops and part of their remit is to encourage conversations about the best distance learning materials.

Digital fiction

One of the resources that has been mentioned several times is a digital novel called Inanimate Alice, a work in progress that I have been following for more than ten years.

I came to Inanimate Alice in 2009 when it was already four years old. I was researching and writing a book for NIACE with Mary Moss and Tracy Slawson called Screens and Pages: Technology and Reading for Pleasure.

Our research showed that: 'Digital fiction has the potential to attract young, emergent or disengaged readers because it is familiar to Internet users, is engaging and, like a video game contains elements that can be controlled by the user / reader.'



'The text becomes less intimidating because readers are able to interact with it, become part of it, and negotiate their way round it. This aspect of digital fiction may encourage some reluctant readers to engage because it suits a more 'kinaesthetic' learning style, rather than the more passive style of 'traditional' reading.'

At that time I came across Jenny Langley, an early adopter while Head of English at a Manchester Academy, who reported that 'in group reading sessions, some pupils find it difficult to keep up and their concentration flags as a result; reading from a print text presents a prime opportunity for disengagement.' She found that with conventional books students stayed on-task for around 70 per cent of the time, whereas with eBooks and digital fiction, they focus for about 90 per cent.

'We attribute this to the fact that learners can read at a pace that they are comfortable with and don't lose concentration as easily,' said Jenny. 'This is especially noticeable in low ability groups.'

The digital novel works for those who are learning English, because it does not depend on being able to decode individual words and build sentences to unravel a story line. It is more like a video game, in that it offers control to the user or reader, who may decide to flip forward and back, and change the order in which things are done, rather than being constrained by the expected behaviour of starting in the top-left corner and working down a page in a linear fashion.

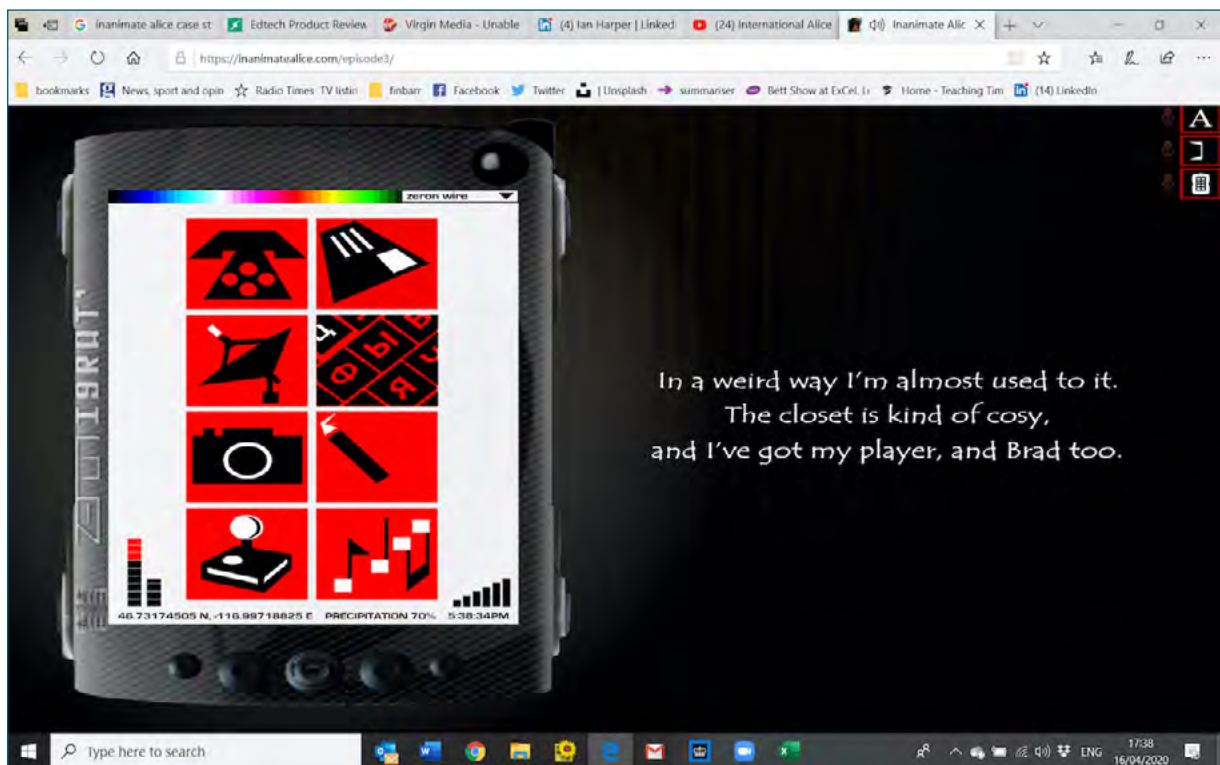
All about Alice

While there is an ever-increasing library of digital fiction, there is something special about Inanimate Alice that appeals to young people. It is a work that can be experienced on many levels. It brings together elements of computer gaming, still photography, moving images, drawing, painting, puzzles, music and sound effects, alongside a spoken or text-based narrative.

A grade 7 student from a Minneapolis school comes close to defining it: 'It's part game, part movie. I'm not sure what this reminds me of, but I know that it is another kind of reading. It's just that you're reading on the computer and clicking a button instead of turning a page. It is easier and faster to get through. It is fun to read.'

Wikipedia gives one of the most succinct overviews: 'Inanimate Alice is an ongoing digital novel, an interactive multimodal fiction, relating the experiences of an aspiring game designer and her imaginary or digital friend, Brad, in episodes, journals, social media, and virtual reality... The planned story arc embraces 10 episodes spanning Alice's life from age 8 through to her mid-twenties as she realizes her dream of becoming a game designer.'

Written and directed by Kate Pullinger, a Canadian novelist who is currently Director of Centre for Cultural and Creative Industries at Bath Spa University, Inanimate Alice is based on a concept and characters developed by Ian Harper, a former international project manager, who at the age of 50, discovered his real vocation and 'went back to school to learn to write for the screen.'



In Episode 1, we see Alice Field as a young mixed-race child, living in a yurt in a remote area of northern China. Her father, John, works in the oil and gas industries; his wife (a painter called Ming) and Alice travel the world with him, often living in remote locations. Over successive episodes, Alice moves to Australia, Italy, Russia, and central England, and has a gap year in Indonesia and Japan.

As Alice grows up the stories become more complex and technically more sophisticated. The early episodes are complete and self-contained chronological stories to be read in a linear way but with activities and challenges that carry the story forward. By Episode 6: The Last Gas Station, the reader is offered a fully immersive 3D experience, while the latest development, Inanimate Alice: Perpetual Nomads, uses virtual reality.

Alice and her readers' world

While Alice, her readers and the technology have been growing up, the world has changed too. Back in 2009, I visualised Alice's audience as children in safe family homes who were not turned on by reading print books. I did not expect the stories to be taken up by migrants, bereaved or whose personal safety was com-

promised.

Inanimate Alice is no longer a novelty, an interesting experiment in literary forms designed for twenty first century audiences; suddenly it chimes with the hashtags of the day: #lockdown, #socialdistancing, #homeschooling. Welcome to the world of Alice.

The family's life is a constant game of hide-and-seek, evading authorities and gangsters, and trying to repay debts. Alice is home-schooled by her mother and when she has a chance to attend an international school in Russia, her father will not allow it because of the risk of kidnapping.

Despite having access to devices and the internet, Alice is socially isolated. She has no friends except her imaginary / digital friend Brad whom she turns to for advice and practical help when the dangers become all too real.



Lonely, rootless and insecure, Alice is an enigmatic figure and this seems to be part of her international appeal.

The stories have been translated into French, German, Italian and Spanish. In Australia they have commissioned translations into Indonesian and Japanese.

Perhaps when school is out – not just for summer but maybe forever – certain books, games and projects become especially cherished. Inanimate Alice has not passed from hand to hand as a print book might have done but has spread by word of mouth with people reading it on phones on computers in libraries in friends' houses.

Ian Harper, her creator, finds these informal networks fascinating. He says, "It is their support for the ground-breaking series that has taken Alice to places and to meet people never imagined at the outset.

"It opens windows on places in the world they will likely never have the opportunity to visit. In Jakarta, it attracts poor students to a free school; for university students in Russia it provides an investigation into modern literature; it resonates with the children of Syrian refugees arriving in Toronto".

More formal projects

Inanimate Alice is taking her place in formal education not just as an example of digital fiction but as a tool for language learning, an impetus for developing digital skills and a catalyst for creativity as people from many countries and cultures tell their own stories.

Cameron Steltman is a teacher from a Halton District School Board school in Ontario

"I believe that over the past few years, as the technology availability and capability has grown, it has become almost possible to completely recreate an Alice episode with Google Slides together with some links to YouTube for music. This year, the students have jumped in with both feet and have completed stories well beyond what I would ever have expected from them.

Another great element of their stories is the coding aspect. We have had a focus on developing our computational thinking skills over the course of this year and with the games element of Alice, my students use Scratch to build their own games that connect to their storylines. This made the work even more enriching and powerful”.

Read the full case study at <https://inanimatealice.com/featured-classrooms/>

At Novosibirsk State Technical University in Russia, Svetlana Kuchina started by focusing on the literary form to teach English as a second language. She has taught the course over several years and made changes to delivery:

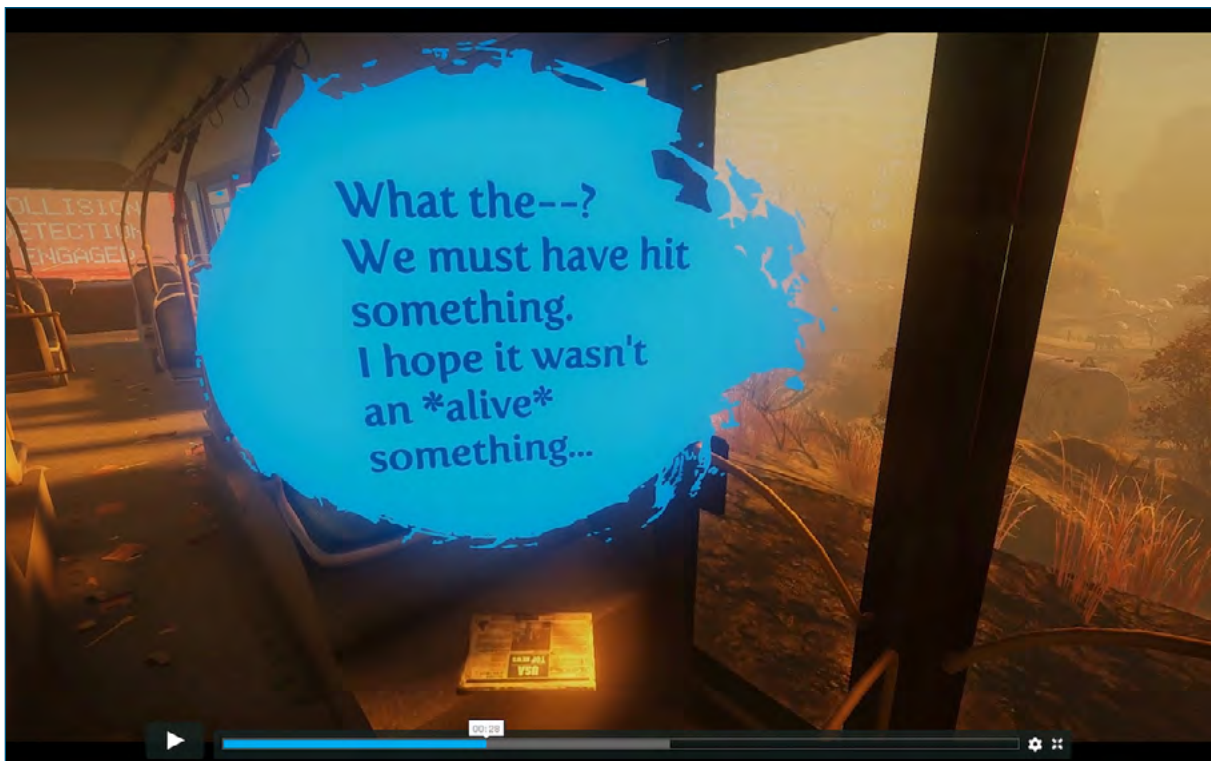
“I decided to schedule the assignments in such a way that all vocabulary training tasks and the reading of research papers on the topic were planned as homework. This is arranged in the just-in-time teaching strategy (JiTT) [Novak], which unites elements of the flipped classroom [Baker] with technological web-based assignments to create an active learning environment for students”.

More recently she has incorporated a wider range of technology and more creative activities based on Inanimate Alice Episode 3, which is set in Russia.

“First, I decided to enrich my seminars with some creative activities such as the video-invitation ‘Alice, welcome to my school’. Since many of the ‘graduates’ of the 2017-2018 project noticed that Alice felt scared while entering the Russian school despite liking it (37 per cent of respondents mentioned the school scenes in the questionnaire), I asked them to suggest their own interpretation of the school topic”.

They went to the schools that they recently graduated from and shot short videos describing their school, showing the main school locations (gym, canteen, classrooms) and inviting Alice to come there. It was a multipurpose task that was aimed at building both speaking skills and skills in creating a multimodal narrative.

Read the full case study at: <https://inanimatealice.com/wp-content/uploads/2020/03/svetlana-kuchina-teaching-electronic-literature-in-russia.pdf>



Alice's new adventures

Currently there is an emphasis on home schooling and there is a new Alice activity: an online detective story with echoes of Sherlock Holmes using video and Powerpoint to present evidence and Google Forms to collect students' responses.

Educators are discovering that Alice is a wonderful resource that intrigues readers. The website promises that, 'Parents won't have to cajole their children to read Inanimate Alice – the episodes are engaging and fun for young readers (and their parents).

"Importantly, students can apply traditionally taught reading skills in new and innovative ways. They will navigate within the episodes as they read, play games, share Alice's experiences, and explore new countries and cultures."

Alice is still on the move. Just as I was writing this article I discovered that she has found a new arena as Perpetual Nomads has been accepted for the online exhibition at SODA (the Social Distancing Art Festival). Then she is off to Germany as Perpetual Nomads will be presented in the Arrival Room Gallery in Saarbrücken.

Eleven years on and still going strong, Alice is a fine example for the UNESCO coalition's work: #Learning-NeverStops.



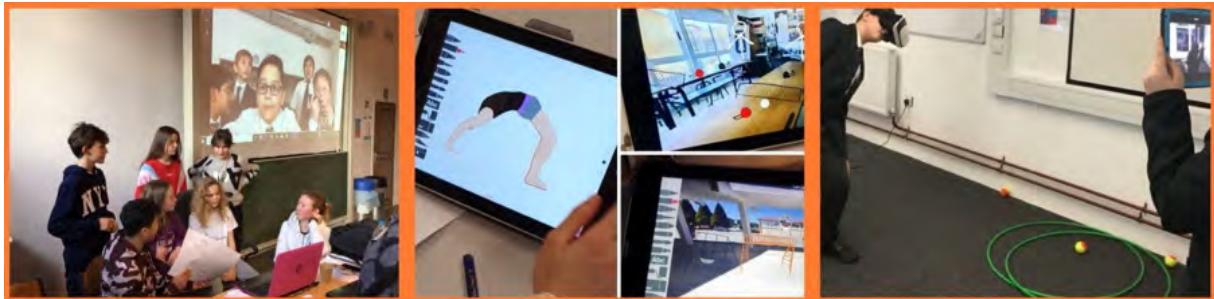
Sal McKeown

Sal McKeown is a writer and freelance journalist focusing on disability, education and technology. She is Commissioning Editor for Digital Learning magazine and is the author of several books Brilliant Ideas for using ICT in the Inclusive Classroom published by Routledge.

Digital Learning Across Boundaries: Augmented and virtual reality supporting effective international learning

University of Northampton research team

Dr Helen Caldwell: Senior Lecturer, Dr Emma Whewell: Senior Lecturer, Grant Malloch: Postgraduate student, Beth Garrett: Undergraduate student



The Digital Learning Across Boundaries (DLAB): Developing Changemakers project is a three-year Erasmus+ funded project, currently in its first year. The project addresses the need to align European educational practice with ways in which digital technology is changing how and what we learn, and how we apply this in education. It also draws inspiration from the changemaker movement, which seeks to build the skills and attributes for individuals to find innovative solutions to society's challenges. Participants comprise around fifty university lecturers, student teachers, and school teachers, together with their school pupils across five European countries: Norway, Denmark, Belgium, Spain and England. Key themes, then, are developing digital literacy and using digital skills to foster cultural literacy as teams of school pupils, student teachers, teachers and lecturers from partner countries work together to prototype solutions to issues they have identified together.



In our use of digital skills, a focus has been immersive technologies, such as augmented and virtual reality (AR and VR), to blend physical and digital learning environments and provide powerful and creative opportunities for international collaboration. Developing digital skills to navigate these technologies, using them to build intercultural understandings, and collaborating to solve complex problems is crucial in today's global world. The project brings together two aspects of the maker movement: digital making and change making.

Over three years the project aims to explore the use of immersive technologies to explore three types of learning across boundaries challenges: physical, personal and environmental. We began with the challenge of using technologies to cross physical boundaries. Pupils and university students collaborated in international teams with their partner classrooms across the five European countries to make a prototype digital artefact that stimulates physical activity and addresses the issue of physical inactivity.

This article describes just one out of four 'crossing physical boundaries' strands of the Digital Learning Across Boundaries (DLAB) Erasmus+ funded project explored in 2019/2020. This strand was based on a subgroup of Danish and English teams of university lecturers, teachers, student teachers and Year 7 pupils working together on the theme of exergaming, in other words using technology to facilitate and promote

physical exercise.

Combining Digital Making and Changemaking to promote physical activity

The English and Danish subgroup within the larger project team explored the use of immersive technologies such as AR and VR in combination with other technologies to address the problem of teenage inactivity. Inspired by their experiences of exergaming at the Sports Innovation Campus in Bruges, participants in Denmark and England used technology for:

1. developing intercultural awareness by swapping digital artefacts about themselves and their environments
2. designing exergames for each other to test and suggest improvements
3. creating a prototype solution to combat the problem of inactivity in a 360° environment

The aims of this sub strand were:

- to create playful learning environments that encourage creativity, collaboration, innovation and entrepreneurship.
- to enable participants to develop the confidence, values, beliefs and skills needed to become digitally literate changemakers.

Background to the theme



This strand of the DLAB project is based on the idea that exergaming is particularly appealing to young people and there have been many success stories including the Wii Fit, the Nintendo Switch and Xbox Kinect. Of particular note was the Pokemon Go phenomenon in 2016 which brought augmented reality (AR) to the masses almost overnight. We were keen to explore the potential for virtual reality (VR) and AR in combination with other technologies to enhance the exergaming experience and provide a motivating medium for children to invent innovative solutions to problems they identified and cared about.

There is a distinction between VR that completely immerses users in a digital world and AR, which superimposes digital information or virtual objects into the real world. AR allows

for a reality where virtual objects appear to coexist in the same space with the real world.

Recent advancements in these technologies have meant that they are now more accessible, more mainstream and particularly well suited to children. Numerous studies have reported an increase in intensity of physical activity as well as higher ratings of enjoyment and interest, suggesting that the immersive qualities of AR are more likely to distract participants from the physical exertion (Lin and Chang, 2015; Faric et al., 2019).

Working closely with pupils, student teachers, teachers and lecturers in the Danish team during designated 'international days' as well as pre and post days, the group explored the use of technologies with pupils at Northampton International Academy. There was an emphasis on using VR and AR alongside a range of other technology tools in a creative way by making digital artefacts to swap and share.

Using technology to get to know each other



As part of our international days, we wanted children to have the opportunity to connect with the children in Denmark and learn about each other's cultures and lifestyles. Prior to the first international day, we introduced the project to Year 7 pupils at Northampton International Academy. The children in both countries used iPads and 360° cameras to take videos and images of their school which we edited using Google Tour Creator to provide virtual tours of their schools. These were shared on the first international day and the children found it really interesting to make comparisons.

On the first international day, as one of the activities, we used CoSpaces to create virtual environments and objects which could then be viewed using AR or VR. Pupils in the two countries used CoSpaces to swap virtual meals with foods that they would typically eat. They were able to view these using AR through their phones

and also using VR headsets. Our aim was for the children to use CoSpaces on a future international day to create virtual exergaming environments.

Children also created some AR animated GIFs as festive greetings which were shared with Denmark.



Below is a summary of the technologies we used for getting to know each other during and between the international days:

- Keynote AR animated GIFs + EyeJack app: swapping festive greetings
- Google Earth VR: exploring each other's countries
- sharing 360° images and videos of our school environments
- Roundme app: making 360° virtual tours
- use of videoconferencing and twitter to support collaboration during the international days
- CoSpaces for sharing virtual meals that represent our countries in VR and AR
- Tweetfall to display a live Twitter feed and videoconferencing tools

Pupils demonstrated that the technology helped to build intercultural understanding:

"Talking to other countries was a good idea because it lets them see what we do in our country and what they do in their country...Seeing how they are doing their tasks will help us to understand how we can do ours better."

“Using simple things like your phone or VR headset allows you to experience things in the world and understand more of the world”.

Using technology to design exergames



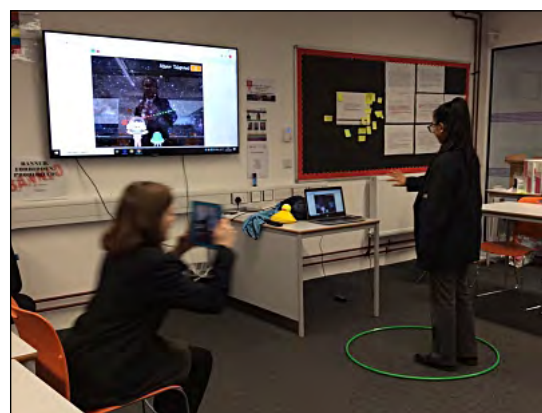
An aim of the first international day was to introduce the theme of technology supporting physical activity. We wanted pupils to choose from a range of technologies to invent exergames to swap with their Danish partners. A starting point was to give the pupils a carousel of choices so that they could explore the potential for designing their own games. A rolling deck of tweets was used throughout the day to give pupils a sense of interdependence as they worked towards a shared goal, and they chatted to each other using video conferencing tools.

This exploring technology phase included:

- making step counters out of Micro:Bits (tiny programmable computers) using the Micro:Bit app on iPads.
- building exercise circuits using Makey Makeys combined with electric fence wire and conductible materials such as tin foil. The Makey Makey is an electronic tool that connects conductible materials to the computer so objects can act as computer keyboard keys.
- programming motion sensing games in the coding environment of Scratch using a webcam to detect movements and control objects on the screen.
- using the PlankPad app with balance boards for core training.
- designing gaming environments in CoSpaces.

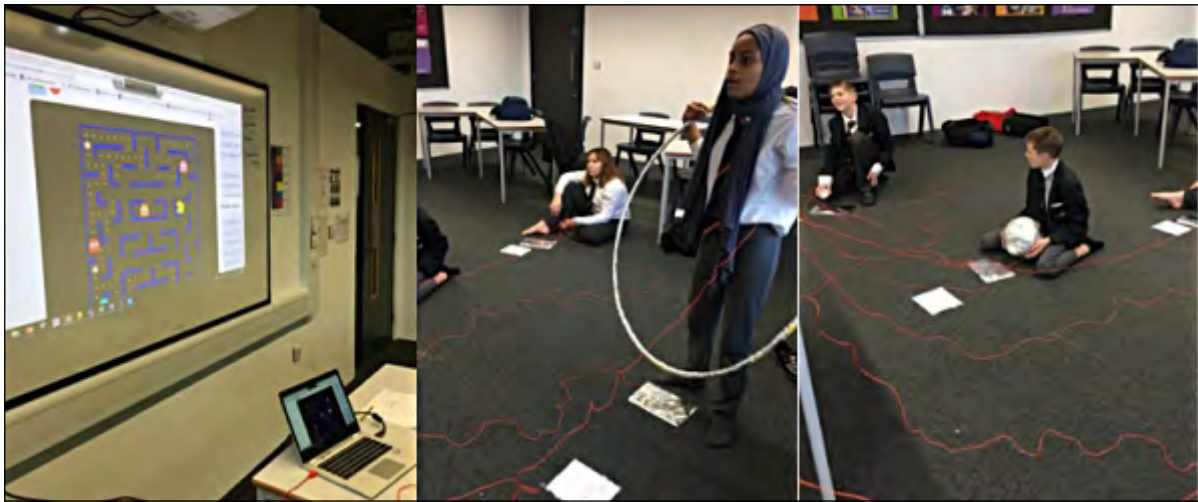
On the second international day we added VR and AR to some of these technologies to design our own immersive exergames. We also made video instructions for the games to swap with Denmark. This resulted in a range of invented exergames to swap, test and evaluate between the countries, such as:

- virtual reality table tennis
- balance boards in combination with VR
- basketball coaching videos in VR using 360 cameras
- a physical movement challenge using the Card-board Camera app
- a Micro:Bits and Scratch remix of a balance board challenge
- Makey Makey games
- a soccer video sensing game in Scratch



The images below show an example of a Pac-Man makey makey game. The arrow keys, space and return on

the keyboard are controlled using physical movements with foil covered apparatus, such as hoops and balls. These are connected with electric fence wire to make a circuit that controls the Pac-Man characters on the screen. Pupils tested this invention with a number of online games, collaborating as teams and competing as individuals.



Pupils spoke positively about using technology in this way:

- “Things you use in regular day with technology can be used in different ways to help enhance your life physically”
- “There’s so much more to technology than just tapping games. It can motivate you to help with your health.”

Using technologies for prototyping innovative solutions

The plan for the third international day was for Northampton International Academy pupils to visit the university and work with a set of HTC Vives and CoSpaces. Unfortunately, the visit was cancelled due to Covid-19 and so just the students and lecturers trialed the combination of technologies for day 3, to explore the final part of the crossing physical boundaries challenge:



Design a prototype digital artefact that draws from artificial realities to stimulate physical activity and addresses the issue of young people’s addiction to online games.

We wanted to use virtual reality apps to design 3D objects within 360° environments to develop our prototype solution of an imagined exergaming environment with an embedded exergaming challenge. We went some way towards achieving this by trialing a combination of five VR tools and apps using the HTC Vive. First we opened the app Tiltbrush to paint in 3D space using the handsets with a range of brushes and effects. We found that this could be combined with imported sculpted 3D objects from Google Blocks, objects and scenes from the Google Poly library of 3D resources for use in VR and AR environments, and our own objects and scenes from CoSpaces. The result was an imagined world containing an exergaming challenge that we could interact with in VR using the handsets. Our plan had been to create our own libraries and

scenes to swap with our partners in Denmark. By trialing this combination of apps, we could see the potential for prototyping solutions to a range of changemaker challenges.

Overall, we think the exergaming strand of the DLAB project this year has demonstrated that the use of VR and AR tools in combination with other technologies can help pupils become creative digital makers and changemakers. Through collaboration with their international partners they demonstrated that they could have an impact on an identified challenge and develop empathy and understanding. As the pupils said:

- “I think we have done changemaking because it shows that we can also help make a difference by joining together physicality and technology.”
- “We haven’t changed the world forever, but we have made a difference and we have shown people that we can help with the future.”

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Lin, C.Y. and Chang, Y.M., 2015. Interactive augmented reality using Scratch 2.0 to improve physical activities for children with developmental disabilities. *Research in developmental disabilities*, 37, pp.1-8.

Online courses

The University of Northampton has three flexible online courses for educators starting in September 2020:

Postgraduate Certificate in Digital Leadership

<https://www.northampton.ac.uk/courses/postgraduate-certificate-in-digital-leadership>

Online MA Education

<https://www.northampton.ac.uk/courses/education-ma>

PGCE Top-Up

<https://www.northampton.ac.uk/courses/pgce-topup>

Contact: helen.caldwell@northampton.ac.uk

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Twitter

@dlab_erasmus

Edtech Theory

How should we theorise the use of technology in education?

Cristina Costa, Michael Hammond and Sarah Younie.

Last year we edited a special edition of *Technology Pedagogy and Education* on the topic of theorising technology and this led us to think about the role that theory plays in educational research. We share some of these thoughts here. We begin by describing what we see as problems in theorising technology, then suggest ways to address these problems and finish by drawing out some implications for theorising.

The problems when it comes to theorising technology in education

It is a commonplace to say that research into technology is poorly theorised (e.g. Underwood 2004; Selwyn 2011a, Oliver, 2011; Drew and Mann, 2018) with criticisms which include a leaning towards over-determinist frameworks; a preference for binary categorisations; and a stance of excessive romanticism.

First, overly deterministic accounts of technology use. Technological determinism assumes that it is possible to predict the consequences of using technology because of the inherent properties within the technology. For example, early researchers saw virtual learning environments (VLEs) as tools for communication and collaboration, leading to social constructivist learning, and expected that they would be used for those purposes. However, in practice VLEs are often used rather differently, for example as repositories of PowerPoint slides and other material, in ways that replicate, as put by Blin and Munro (2008), 'behaviourist, content-driven models'. Designers want tools to be used in certain ways but their use is not determined by their intentions, rather use is shaped by outside influences such as curriculum policies, planning documents, discourses around technology and expectations of learners and colleagues. It is this broader context that we say too little about.

Second, there is a tendency to theorise the use of technology using a binary lens: for example to divide teachers as adopters or resisters, learners as deep or surface, and age groups as digital natives or digital immigrants (Prensky, 2001). Of course these categories have some value for shining a light on patterns of behaviour but they should not be over interpreted. Being a digital native is not an innate condition of being young, rather there are expectations and opportunities around technology that younger people grow up with. We have to critically explore those expectations. Further, not everyone fits the same pattern. Any one individual's technology use can be inconsistent and very dependent on the circumstances in which they find themselves; technology use is neither static nor timeless.

Third, research focusing on digital technology and education has suffered from romanticism. Optimism is the natural stance for the educator, but optimism should not be pushed to the point of naivety and research into technology has often been naively optimistic both about technology in general and educational applications of technology in particular. Technological optimism makes a leap from what can happen to what ought to happen with little in between. For example an observation, say, that learners seem able to connect online with each other can lead all too easily to a belief that such connectivity is not just possible, but will almost necessarily bring about valued educational outcomes (e.g. Siemens, 2005).

How can we theorise better?

Theory in its broadest sense is helpful as it provides a lens on a given phenomenon and helps provide a language to develop understandings and/or critique. A consequence of theorising is a vocabulary for communicating ideas which become part of public discourse. It is thus important that we use theory to think about technology in a more nuanced and critical way. How can we do this?

We should begin by recognising that we are not starting from a blank sheet. There are many shortcomings in the field of education technology research but there is much to be celebrated too. For example in terms of methodologies and frameworks research is comparatively free from the 'one size fits all' approach that characterises some disciplines and researchers are often open to innovative methods (for example, analysis of digital archives) and new methodologies (for example, design thinking as a way of understanding the user participation in creating new technological tools). Indeed its very novelty offers those researching technology the freedom to develop new approaches, and these can include innovative interdisciplinary ones. Another strength of educational technology research is its concern to exchange experiences with practitioners and often a deep-seated desire to inform practice. So we should look back but recognise that we need to reimagine past work and we suggest four ways we might do this.

First, we need to say more about context. Context is so important as it frames technology use. This is such a relevant insight at the time of institutional lock down in response to the coronavirus (COVID-19) pandemic. Take-up of digital tools has accelerated, including take-up by erstwhile 'resisters' as circumstances have demanded their use. The message we take from examining lock down is that we need to spend less time categorising learners and teachers and more time theorising about the context in which teachers and learners work and ask questions about what they are expected to do in that context. Here there has been useful work looking at the ecology of the classroom (see Hammond, 2020) which offers a more holistic approach to theorising technology. As part of this undertaking we need to consider how our worlds have become increasingly hybrid so that digital technologies have become, and will remain, part and parcel of daily life.

Second, we need to say more about technology itself. Here important theoretical work has been carried out in cognate fields which has only slowly found its way into education technology research (Costa and Murphy, 2016). Technology writing at its best recognises the various ways that tools can be used and the reasons why teachers and learners gravitate to certain practices. Johannesen and Habib (2010) provide one useful example of this by showing how software, in this case multiple-choice software, was used in unpredictable ways and not necessarily as designers expected.

Third, we need to consider the language we use to describe technology use. Theory creates a new layer of language that is able to illuminate, sometimes amplify, the understanding of the world we aim to explore. In theorising we need to pay particular attention to the provenance of key terms (for example, 'digital immigrant' earlier) and point to tensions in how these terms are used (for example, the derogatory connotations that come with terms such as 'laggard' and 'lurker'). We need a language to reflect a spirit of cautious optimism. Indeed, excessive optimism should be avoided but so too its corollary, excessive pessimism. Pessimism is an important counterweight, especially when coupled with a call for action (Selwyn, 2011b), but pessimism should avoid reinforcing a sense of powerlessness.

Fourth, we need to address distinctive educational concerns including equity and fairness. Here social researchers are facing persistent calls to critically examine power imbalances in the conduct of research (gender and class imbalances, but also economic and geographical ones) which those researching technology have been slow to embrace. These imbalances require researchers to consider their own positions and the socio-cultural contexts, including the digital divides, in which their work is carried out (see, for example, work conducted by van Deursen and van Dijk, 2014). Researchers need to take into account not just gender, ethnic, class and disability backgrounds but more recent discussion of intersectionality and the ways in which research may be made both critical and useful (e.g. Timmis and Muhuro, 2019).

To sum up

We have set out what we think are some of the problems in educational research and what we think new theories of educational technology need to address. Thus, a particular challenge in theorising technology research is to articulate the relationship between person, tool and environment and to say something about the opportunities for individual agency, without, as seen earlier, being excessively optimistic or pessimistic. This can be done by drawing on different disciplinary traditions – not only sociology, but also philosophy, linguistics or literary studies and so on – but always with a clear sense of what makes education research distinctive. This is an exciting agenda and one that builds on past work but takes it forward in new directions.

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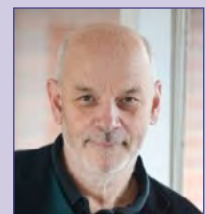
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Authors



Cristina Costa is assistant professor at Durham University. She has a strong interest in educational and digital practices. She has written about digital literacies and digital inequalities curriculum innovation and digital scholarship practices in the last few years. She is co-editor of the *Social Theory Applied* blog.

Michael Hammond is reader in education technology in Education Studies, University of Warwick. He has written extensively about conducting research and using technology. He has taught specialist ICT courses and courses on research methods.



Sarah Younie is professor in education at DeMontford University, Leicester. She teaches on both masters and undergraduate programmes and supervises research students in educational technology, innovation, pedagogy, professional development and management of change. She has written widely about technology and education.

Endnotes

A Day to Remember

Laurence Boulter

I was delighted to have the opportunity to talk about my day out at the TPEA/Mirandanet conference at Winchester last summer. The conference was held at the Winchester Hotel which was kind of appropriate given that I had built the hotel. Perhaps not all of it, but I did live in Winchester for some years after completing my Degree at Winchester School of Art and I managed to get hold of, via a line of intermediate subcontractors, the contract to plasterboard the hotel. Just before the contract was to start, I managed to put my back out. I went to the doctors and explained how I needed to complete the contract. He prescribed a large bottle of a new kind of drug that we now know as anti-inflammatories. "You'd better eat these like Smarties" I remember him saying as he stubbed out a cigarette. Contract regulation, control of medication, secondary smoking handled in very different ways to the way we do things now.

I have been pondering for a while now how our liberties have changed over the years and whether technology has had a role in that. This train of thought flowed out of a previous article "Learning in a Digital Landscape" that was published in *Advancing Education* in Autumn 2015, where I explore the use of digital technology by young adults. This is important. If we are to consider how best to prepare young people for their lives in a technological world we need to keep in mind their nature. I may or may not have been a typical teenager, but the following tale reveals some traits and suggests some cognition that we all might recognise. As an anecdote it serves to remind us of how short-sighted and uncompromising young people can be alongside the creativity, energy and passion we know they can exercise and which we rely upon, and that we should recognise these are two sides of the same coin. I do know that there are many teenagers who would never then, or now, consider spending a day like this. There is plenty of evidence however that suggests that this kind of anarchic behaviour still exists and has migrated online and is, as explored in my previous article,



Image Credits: Dirty Dicks interior; - [Sylvia_c77](#), CC BY NC

Wembley - [Wikipedia](#), CC BY SA

So, one of my most formative memories was going to London on the day Princess Anne married. It was Wednesday 14th November 1973, I was 16 and I went with my friend, Kevin. We decided that we would go to the capital with the express mission of avoiding the wedding. We had recently read Anthony Burgess' "A Clockwork Orange" and were feeling rebellious. I feel bound to point out just how atypical it was for either of us to read a novel. As first-generation Basildon new town inhabitants, our homes did not contain much literature, in fact I cannot remember reading any voluntarily until I started my studies at Winchester, - Solzhenitsyn, "August 1914" would you believe!.

We began the day by not paying for our train tickets. In those days arriving at the barrier at Pitsea station when the train was about to pull out waving a £20 note was enough to make the guard curse and gesture you through. From Fenchurch Street we wandered over to Liverpool Street and had a few pints at Dirty Dick's. From there we headed for Leicester Square to watch Stanley Kubrick's "A Clockwork Orange". Given the Royal wedding we were the only two members of the audience and sat in the centre of the auditorium with our legs resting over the seat in front, chain smoking. With our Harrington jackets, thigh length Doc Marten boots and white jeans we sat alone in the centre of the darkened cinema. Laid back issuing plumes of smoke into the projection beam, we provided an image that would not have been out of place in the film.

We then made our way to Wembley Stadium to watch Bobby Moore in his last England appearance lead the team England to a 0-1 defeat against Italy.

We were 16 years old but thought nothing of expecting to be served in a pub or being allowed entrance into an X-rated movie, or deciding on the spur-of-the-moment to go to an international football match with no thought of letting our parents know. We were at liberty to read controversial literature, deface pub walls and run onto football pitches. I am pretty sure that day fixed the notion in me that you, and only you, are in control of your life and that rules are social fabrications. It is not without irony or relevance that a few years later I embarked upon a 35-year long career dominated by bells and timetables.

The above may not be a typical day in the life of a teenager in the early 70s, but it is one that demonstrates a particular relationship with society and more importantly, with adults. None of the above took place without adults being present. The liberty we enjoyed was provided by the adults around us, the ticket inspector, the bar staff at Dirty Dicks, the ticket office at the Odeon, the officials at Wembley and our parents, and I am not so sure that these were acts of neglect. It would have been very easy for any one of these adults to stop us in our tracks and I wonder if the community tolerance we enjoyed was part of an unspoken forbearance that recognised our place in our journey towards a "coming of age". Our day out was possible because of adults, not despite them. I am not so sure that we might say the same about how we handle the testing nature of teenage behaviour online we see today. Perhaps we should?

Book Reviews

Making a difference in Education: What the evidence says

Robert Cassen, Sandra McNally and Anna Vignoles. (2015. Routledge.)

Review by Terry Freedman, published 19 Feb 2016 (re-published from ICT & Education)



I've been reading a very interesting book about educational research. I'm very much of the opinion that decisions in school generally, and in the classroom specifically, should be based on research evidence. Unfortunately, many academic books and articles border on the unreadable, but "Making a difference in Education: What the evidence says" breaks the mould.

This volume by Robert Cassen, Sandra McNally and Anna Vignoles covers a broad range of topics: a history of educational policy in the UK, Early Years, parents, school organisation, what makes a good teacher, reading and writing, numeracy, special educational needs, ICT in the classroom and vocational education.

It covers each of these topics from the standpoint of what educational research has to say about them. So, if you read the whole book, you will have a very good overview of what, according to academic research, works and what doesn't over the whole general gamut of

education in the UK. By "academic", I mean using randomised control trials and other characteristics generally associated with scientific research.

Of course, control trials are only feasible and useful to a certain extent when it comes to education. Nevertheless, it's nice to read a book that, for the most part, draws its conclusions from research rather than conjecture or anecdote.

Having said that, it's disappointing that unfounded assertions are sometimes made. For instance, in the chapter on ICT, the author states that:

"By 2012 it was openly recognised that teaching of [ICT] in schools was mostly dismal..."

Although I would agree that many people thought the teaching of ICT in schools wasn't great, as far as I can tell that was largely based on the flimsiest of "evidence". For example, I attended a conference in, I think, 2009, in which just about every speaker stood up and said "ICT is boring, and I know this because my 12 year old daughter told me."

It's understandable that when enough people say the same thing it comes to be accepted as fact, but I should have thought that a book specifically dealing with educational research would not do so unless it had been proven (insofar as such things can be proven).

The author also states that "it seems axiomatic that the younger generation are...'digital natives'". Well, some of us have been saying for years that it is simply not true. See, for instance, The myth of the digital native, in which I report on a talk by Professor Angela McFarlane.

Still on the subject of ICT, it is a drawback of this type of book that, notwithstanding my earlier comments, it can only report on what is, not what should be. In this context, the author makes clear that the teaching of ICT was thought to be pretty awful, and so a new curriculum was brought in. This is true, but it's a pity that

the sleight of hand remains unremarked upon. That is to say, if the teaching of ICT was dreadful, then the logical solution would have been to improve the teaching rather than change the curriculum.

Occasionally, the word “obviously” appears in the book, which I find irritating, because it seems out of place in the context of reporting research.

Despite these niggles, I have found the book to be hugely informative and, perhaps surprisingly for a book of this nature, highly readable. It provides a veritable romp through hundreds of research studies in dozens of areas over several decades. It does indeed report what the evidence says. For instance, in the chapter on ICT the author recognises that there has been no definitive evidence of the efficacy of teaching ICT per se, though the use of education technology in other subjects has apparently been more successful.

I loved reading the chapter on what makes a good teacher. A few months ago I was looking into this myself, for a talk I was due to give, and spent hours trawling through reports from all over the world. It was a useful exercise, but I could have done with this book back then!

Should you, as a Computing or ICT teacher, buy this book? From the point of view that there is only one chapter on ICT (and which mentions the new Computing curriculum), I'd say a cautious “yes” – cautious because although the chapter is very interesting and useful in presenting evidence from several studies, it would be a relatively costly purchase if you read no other chapter.

But as an educational professional, you should definitely buy the book. I think it's important to have a broad knowledge of other areas of education besides one's own specialism. I also think the chapter on history is very useful: nothing that is happening today in education just popped up out of the blue. Knowing a little about the past provides a context for the present, and an explanation of how, as the authors put it, we got here.

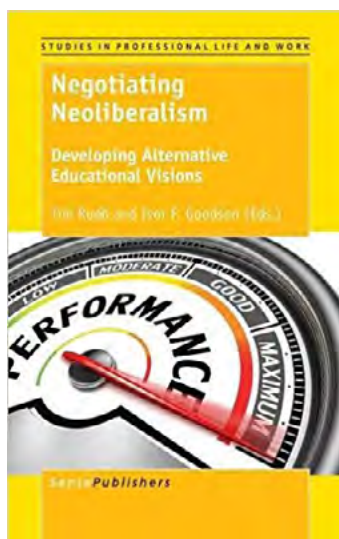
Click to purchase from Amazon: [Making a Difference in Education: What the evidence says.](#)

Please note: I was sent a review copy of this book, and the link above is an Amazon affiliate link.

Negotiating Neoliberalism: Developing Alternative Educational Visions

Tim Rudd and Ivor F. Goodson (eds) 2017. SensePublishers

Reviewed by John Galloway.



You could take this to be a rather gloomy book, one that lays bare the dominance of Neoliberalism as the hegemonic political, economic and social philosophy of our age, and its penetration into all aspects of our lives. It's influence has been growing in the UK since the 1970s and accelerated by the 'austerity' agenda – rolling back the state, increasing the role of markets, privatising public services, increasing personal choice. In education, amongst other things, we see it in the promotion of academies and free schools, establishments outside of the structure of the local authority, designed to create surplus pupil places and thus stimulate a market between schools.

It is an idea that, like a virus, has infected not just our commercial and public service structures, but our attitudes and approaches to our professional and working lives. It is a GERM, a Global Education Reform Movement, that

has monetized education, at every level, making it a product to be sold rather than a developmental experience to be had.

Whilst ostensibly promoting decentralisation and innovation its reliance on set metrics for judgement and evaluation drives all providers – schools and universities – down a narrow channel, limiting their offer, and their worth to what can be easily measured, and thereby valued.

It is the sort of approach that technology can be conscripted to support through data collection and analysis that demonstrates achievement against pre-determined outcomes, but that is blind to incidental learning and personal development along the way. As Hayler makes clear when quoting a Master's account of discussions with a head teacher about why his year 6 SATs results were not as good as colleagues', that he "couldn't use that excuse anymore," when pointing out the degree of learning difficulties in the class. The discussion ignored the progress in learners' "growing confidence, motivation and enthusiasm."

But, this book suggests, it doesn't have to be like it, and all of us in education, wherever we are and whatever we do, can do something about it.

So, you could also see this book as a call to arms, denouncing the appropriation of a fundamental human activity – learning – for narrow, selfish, financial, gains. By shedding light on the penetration of Neoliberal approaches into all aspects of our lives, but especially our schools, colleges and universities, it seeks to alert us to the dangers, and to our own collusion in its growth, and asks us to not only to resist, but to push back.

The infiltration and acceptance of Neoliberalism is shown to be an international issue, with examples from Nepal, Norway and Ireland. Sugrue uses the latter as a case study – its growth as the Celtic Tiger then its near financial collapse following the 2008 banking crisis – to demonstrate how policies of austerity and economic imperatives are used to make the case for practices that strip creativity from the curriculum to give a narrow focus on "basics," policies that "get under the skin of teachers and learners where they sap vital energy, commitment, motivation and morale."

There are reminders that other approaches are possible. Schostak writes about the principles of co-operative education and a curriculum developed through "motivations, curiosities and interests aroused by exploring together," rather than one "imposed by authorities over the needs and interests of young people and adults."

Deborah Philips, in a thoroughly researched chapter, lays bare the sneaking privatisation of schools, the blurring of the distinction between public and private interests that allows commercial organisations connected to the charitable trusts replacing local authorities as organisational entities across England, to mop up lucrative contracts. With mechanisms of local accountability disassembled in order to allow market forces to operate

Elsewhere, Stephen O'Brien decries our ready adoption of reductionist practices and associated language embodied in our use of 'Learning Outcomes,' that these "represent a particular knowledge type," one that allows us to, "measure it, claim ownership over it, test it for inadequacies." This approach shifts the focus of learning from personal interest and development to the generation of data. Instead he urges "Resistance for Freedom's Sake," with a call to rediscover education's "more authentic soul."

The editors offer us a framework for educational research of Five Rs – remembering, regression, reconceptualization, refraction, and renewal – but ask us also to look for instances of resistance (their italics). Their conclusion, however, is that the basis of such resistance is not based on analysis, on the narrow, data driven, reductive approach of Neoliberalism, but rather of humanity: in "the question of the meaning of life" which

“continues to elude the neo-liberal market society,” which has “failed to win ‘hearts and minds.’” In refusing to accept the de-humanising approach to education implicit in Neoliberalism we can “begin a ‘long march’ in the opposite direction.”

An unashamedly polemic book, who’s perspective can help all of us, regardless of our own position, to reflect on, re-examine, and understand education systems globally, and our opportunities to influence their future.

Naace news

Naace and the BETT Show

BETT publications



As part of the mutual support arrangements between Naace and Hyve the organisers of the BETT exhibition, Naace will be contributing articles to the BETT Community online at:

<https://www.bettshow.com/bett-community-hub>.

This will include articles from the web site and articles from the Advancing Education Journal. The BETT Community has a large readership, so if you think there is a particular article that would be of interest to the community please let our editor Christina Preston know at Christina.preston@naace.org.uk

The BETT show

There are some changes to the arrangements for BETT2021 - you may already have heard about them - the show will be on Wed/Thus/Fri 20-22 January. The show will be open from 10am to 6pm Wednesday, 10am to 8pm Thursday and 10am to 5pm on Friday. (Please note: this is subject to final confirmation).

How education technology can help to overcome the challenges in Initial Teacher Training.

Webinar recording of IRIS Connect in conjunction with TPEA and MirandaNet.

Naace members were invited to attend this webinar that was focussed on the considerable challenges that both ITT staff and student teachers are facing at this time.'

The questions asked were:

- Is it time we considered the use of educational technology as more than just a simple stop-gap in the current crisis?
- Should we reflect on both the disadvantages and advantages of the broader use of technology and consider what this means for the future?
- Are we exploring alternative solutions to supporting trainee teachers during this period?

IRIS would love to hear Naace topic suggestions and areas of interest, or maybe you would like to become a panellist and share your own experiences?! Either way get in touch with Christina Preston christina.preston@naace.co.uk

Use [this link](#) to watch the recording and speaker slide deck, so here they are. Please do share these with colleagues and friends that were unable to attend.

Journal team profiles

Editor

Christina Preston

Editorial Board

Allison Allen



Allison is Director of Outstream Consulting and has held a number of education leadership and governance roles in complex multi-stakeholder environments. Currently she is chair of governors for a multi-academy trust (leading on safeguarding, curriculum, standards, and special educational needs); she is a past Trustee of Naace, London Grid for Learning, a Senior Fellow of MirandaNet and a Founder Member of Chartered College of Teachers.

She provides consultancy and advice in the UK and internationally to schools, government and suppliers, helping others gain traction with education technologies to establish meaningful vision & remarkable outcomes

Allison is joint author of several high-quality books and publications relevant to education technology, leading on Digital Safeguarding for Naace as well as being a lead author of the newly revised national Self Review Framework, recently introducing the new Element 'Digital Safeguarding'. She is a national Assessor of NaaceMark - the national and international schools' education technology benchmark and is a Third Millennium Award judge.

Since her early career in teaching, Allison has developed 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. (photo)

Phil Blackburn



Phil taught Physics in Bedfordshire before being seconded to the Micro Electronics Programme (MEP) and later a project at the DTI. Spent 18 years in Durham as head of the Microtechnology Centre and a number of other job titles followed. Retired for the first time in 2009 and has managed his own consultancy since.

A member of Naace since 1994, part of the quality assurance group that initiated the Naace Self Review Framework in 1998 and joined the Board of Management in 2018. He succeeded Steve Moss as chair in 2020.

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 and design-based 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 under the name of LBo. This year he has supported a number of MATs and has worked alongside some well known providers. Laurence retains a vision of how IT could further support schools, both as a means to provide pupils with valuable and memorable experiences, and as a tool to ease the workload of teachers. More recently he has developed CPD resources for Office 365 packages and supports the DPO function of a large multi-academy trust. Laurence has a strong following on LinkedIn where he publishes regular articles on contemporary issues concerning the use of educational technology.

Laurence joined the Naace Board of Management in 2018 as a response to the obvious need to reform and subsequently became Vice-Chair in 2020. As a long-time member of Naace Laurence would like to see Naace regain its position of National Authority at time when guidance and support for schools is scarce or inconsistent.

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.

Gavin Hawkins



Gavin worked in Wolverhampton schools as a teacher, subject specialist and senior leader for 18 years. Whilst he was Assistant Headteacher, his school was awarded the BECTA ICT Excellence award for Teaching and Learning with ICT and NAACE Mark.

Gavin worked for Wolverhampton local authority as an education technology consultant and managed the Learning Technologies Team supporting schools in their adoption and implementation of education technologies. The team won a BETT Award in 2010 and 2013 and were shortlisted in 2016.

Gavin is interested in integrating education technology within other subject disciplines and has written papers on the use of technology to enhance geographical field work. He holds an MA in Education, is an ICT Mark and Online Safety Mark Assessor, holds the National Professional Qualification for Headteachers, is a Member of the British Computer Society, Member of the Chartered College of Teaching and a Fellow of the Royal Geographical Society. He is co-founder and chief executive officer of Squirrel Learning Limited and NAACE Board Member.

Alison Blackburn



Alison is the Naace journal proof-reader, qualified as a teacher in the early 70's, when teacher training, over three years, was completed first and then the B.Ed. Her initial direct encounter with anything to do with computers was in her first job. All those responsible for a subject were interviewed by an LEA Officer (remember them?). She was asked, "How would you use a computer in your RE lessons?" Her response was, "Well, you tell me what your computer can do, and I'll tell you if I can use it."

After retirement from teaching, she trained as a Lay Minister (formerly Reader) and went on to qualify with a BA in Theology, Mission and Ministry from Durham University.

A broken ankle forced Alison to look for something worthwhile to do whilst incapacitated and she completed an online Diploma in Proof-reading. Another IT first! She has become accustomed to using IT in a wide variety of situations.