

# Back to the future

## What a project of the 1990s can tell us about today's digital divide

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### **Abstract**

This is a first-hand account of a head teacher's quest to bridge the digital divide in a school catchment of considerable disadvantage in the late 1990s and early 2000s. It describes the Microsoft Anytime Anywhere Learning project (AAL), which the school helped to pioneer in the UK. From this, the paper aims to provide some fresh perspectives on the deficit of IT provision which has inhibited home learning during the Covid-19 pandemic 'lockdown'. Through referencing the AAL project, the author also calls into question the notion that bridging the digital divide is the great educational panacea, a view which has become the received wisdom among certain politicians and educationalists.

**Keywords:** digital divide; online learning; extended services.

### **Introduction**

The digital divide is a real-life phenomenon, but is it a symptom of more deep-seated issues that we ignore at our peril? Are we side-lining other important aspects of education such as experiential learning? Are we rushing children into a virtual world before they have an adequate grasp of the real world? Is good learning and the development of skills and conceptual thinking being sacrificed on the altar of technology? Should education uncritically help us back to business as usual via a technological route? This paper is partly polemical and is intended to instigate further discussions and thought during this time of societal reflection.

### **BC (before connectivity)**

In 1995, I took up my first headship in a very run-down primary school in the East Midlands of England. It was run-down in many respects. Its buildings were formerly part of a huge Second World War army camp, converted into a school in the 1950s as a 'temporary measure' but still in use well into the new millennium. The estate within which the school operated suffered from the classic symptoms of deprivation: high unemployment, negligible rates of adult participation in further or higher education, and poor social facilities (no library or recreational facilities for a population of around 9000). The 'toxic trio' (domestic abuse, parental substance misuse and parent mental health issues) were prevalent. All this had been compounded by the late 1980s Thatcherite neoliberalism that had brought mass unemployment and social atrophy to

previously quite prosperous and socially cohesive manufacturing towns and cities. To give one more dismal snapshot: at the time this estate had the highest rate of teenage pregnancy in Western Europe! To compound some of these difficulties, it was also home to many Traveller and ex-Traveller families from previous generations for whom education wasn't seen as a way of self-improvement. There were complex reasons for this, including proud self-reliance, an anti-authority stance due to suffering great prejudice, and the culture of schools themselves both in terms of hidden curriculum and the formal aspects of schooling, which were perceived as 'alien'.

From this, one would not be surprised to learn that the cultural context for educational development was very challenging and all the local schools had their work cut out to engage their populace in any meaningful way. Despite this, I found that if approached sensitively and non-judgementally, people did respond positively to overtures from myself and colleagues and that it was much better for us to truly embrace our community rather than keep it at arm's length. This involved implementing extended services such as breakfast and holiday clubs and various forms of after-school provision e.g., homework club and a plethora of sports and arts clubs, all run by members of staff. This approach proved highly effective, and slowly but surely, alongside other 'school improvement' tactics and strategies, we began to make meaningful progress on all fronts. I hasten to add that this progress wasn't made through narrowing the curriculum and teaching to the test (which would've been counter-productive), but through enriching the curriculum and widening its scope through an education for sustainable development (ESD) ethos – which is another story.

### **Living the American dream?**

But how to accelerate this progress so that our children continued to develop a love of learning and their parents retain a meaningful stake in this? In 1998, an opportunity arose that seemed to fit the bill. It was the Anytime Anywhere Learning (AAL) project inspired by the work of Microsoft's education arm. It aimed to:

- provide candidates with on-to-one access to computers
- raise standards of learning
- create 'connected learning communities' (students, teachers, parents).

I came across it at a launch event at the Brighton Conference Centre when invited to attend by some colleagues from the local further education college. I'd worked with them when seeking to develop adult learning at our school premises (with the aim of creating more adult learning role models in the community). It involved many motivational speakers from the USA expounding enthusiastically about AAL and how it was redefining the way children and students were learning, and how they were

being taught via various computer devices and burgeoning software packages. Having only just learnt how to use a PC for word processing, all this seemed utterly incredible and out of reach; all the more so because it was about pupils' one-to-one access to a computer (mainly laptops, which were just becoming more common) and teachers producing digital learning resources to deliver the curriculum.

Apart from the necessary staff training and curriculum revamp, how was this to be affordable? Well, Microsoft had thought of that. Along with their own speakers they had others lined up from various hardware suppliers who themselves had finance-house partners who would provide credit facilities for parents to buy their offspring the devices. This included a comprehensive maintenance package that, if necessary, would provide a replacement machine if the child's needed to be taken away for repair.

On the last night of the conference there was a jamboree with a 'wild west' theme, including a mechanical bucking bronco to ride, which many tried on the back of copious free 'tequila slammers' and other goodies. The following day, bleary-eyed delegates were invited, almost in evangelical church style, to sign up to The Cause. Yes, you too could be an AAL pioneer school! I witnessed a clamour of head teachers and principals wishing to sign up there and then. But I noticed that almost all of these zealots were from the private school sector. Of course, this was because they had the parent body who could literally pay for the privilege. This brought out my inner-Marxist and I started to get vociferous with the Microsoft people about the inequalities in society and how this project was in danger of making these worse. I regaled them with tales of my own experience at the 'army camp' school with the Traveller families and the teenage mums. They continued to exhibit their expensive white-toothed American smiles and patiently told me that AAL had been highly successful in areas of high deprivation across The Pond. A community in the Bronx was quoted – along with others – in equally challenging circumstances. I'd remembered this from one of the presentations where they'd shown how families took great pride in their laptops and, despite predictions, there'd been negligible damage or theft of these valuable machines. They had changed disadvantaged communities into learning communities in the sort of way I could only dream of.

### **Philanthropic friends**

My cynicism was reinforced because the AAL schools in deprived American districts had invariably been gifted laptops from philanthropists or benevolent multinational companies. Other schools had taken out the aforementioned finance options. Apart from the alleged educational benefits, the whole scheme started to look like a way for companies to sell more laptops and finance schemes, and for Microsoft to finally break into the education market, something heretofore they had been lax about doing

and had fallen behind competitors. It was significant that they encouraged teachers to develop learning resources via their main software applications i.e. Word, Excel and PowerPoint.

I continued to make a fuss about equal opportunities etc., until an American gentleman approached me and asked if he could visit my school to see our situation for himself. It turned out that he was part of Bill Gates' close-knit team, and so with nothing to lose I cordially invited him over.

After a tour of the school, we continued the discussion about the extra challenges we faced above and beyond purely educational ones. He didn't say much but seemed in sympathy with our situation and said he'd stay in touch. About a week later, I got a call from him and he asked if we could make use of \$50k to help launch the AAL project at our school. Having picked myself off the floor I said yes, and so began our journey into bridging the digital divide.

The donated money was enough to provide one-to-one access for our year five children, but I realised that this wasn't a sustainable solution going forward. The following year we obtained a similar amount from the local Training and Enterprise Council (now sadly long-gone) on the back of me selling AAL to it in a similar evangelical style as Brighton (yes, I'd picked up the technique), by saying that the laptops were to be taken home every night for the children to use and that there was great potential to get the parents to learn how to use them as well. This linked to the aforementioned partnership with the FE college who could run European Computer Driving Licence (ECDL) courses after initially running basic IT-skills sessions. It would be like seeding the dead planet of Mars with biomaterial to help it regenerate.

All this coincided with the UK government's launch of laptops for teachers via a non-departmental public body called the British Educational Communication & Technology Agency (BECTA), financed by the Department for Education. Schools could apply for up to two laptops, which I duly did. One for me and one for our newly created 'ICT Co-ordinator'. This was one of many BECTA initiatives and it also commissioned research into the effectiveness of using new technology in schools. Again sadly, BECTA is no more having been part of the 2010 'Cull of the Quangos', instigated by the Coalition government.

## **Inward investment**

However, once again this wasn't a sustainable solution, given that once the computers wore out we were back to square one. The finance option wouldn't work because not enough parents were creditworthy and also even a relatively modest amount paid per week would stretch their budgets too far. We looked at parents paying 'voluntary contributions' which we could top up, but this meant we were vulnerable to defaults

and also some legal people said that this was tantamount to the school turning into a credit broker, which we weren't allowed to be. The elephant in the room continued to be that of equality. If one group of children had laptops and others didn't, how could it be equitable and manageable for the teachers?

There was no avoiding the fact that we needed an income stream and, without a benefactor, this would have to emanate mainly from the parent body. This is when the idea of an 'e-learning foundation' emerged. If we set up such a charitable trust, then parents could make voluntary contributions into it and the school could then access the money to provide computers for the children. Any surplus external funding, and some school budget, could be used to buy additional laptops or PCs so that one-to-one access could be maintained for every child in a year group. Parents needed to know that the laptops were the property of the school, but then after a year or so the school could sell them on to parents for a residual price, or reallocate them to children moving up the school.

## **Law and order**

All well and good, but the spectre of equality emerged again. Were we breaking the part of the 1944 Education Act which stipulated that all children needed to be treated equally in terms of provision during school time? In the past this had meant that schools couldn't 'charge' parents for educational trips (day or residential) and could only ask for voluntary contributions. Would we be ok to do this in the context of an AAL class or year group, with other classes and year groups being left without the laptops? To resolve this, Microsoft paid for the services of a Queen's Counsel (QC) and we went down to his London Temple chambers to find out his verdict. After scouring the small print of the 1944 Act, he said that we were within the law to provide laptops through parental contributions to a particular year group. As a result, we could create our e-learning foundation and target four classes (two from year five and two from year six) to receive AAL benefits.

The next challenge was how to make the laptops affordable. We had various meetings with interested parents and established that, for the price of cigarettes or a family McDonald's meal per week, the payments could be manageable, even for very low-income people. We emphasised that when the machine went home it could be used by the rest of the family (although we had restrictions about only using school-approved software). Some parents actually gave up smoking and missed their McDonald's treat!

When AAL started, the internet was less significant than now, so families operated standalone machines. However, as online use became more the norm, this in itself was an additional gap to bridge. Some families didn't have landlines, so we used wireless dongles to help them connect. These were relatively expensive and didn't

provide enough time for meaningful use. Following this, I negotiated with the local council and an intranet provider, and we tried to establish a wireless bubble over the whole estate by fixing transmitters to lamp posts. This had limited success because the technology wasn't really fit for purpose and we didn't have enough funding to provide sufficient coverage.

Despite these limitations, the project did replicate the learning gains that various studies across the world had indicated. For example, Passey (2000) looked specifically at AAL schools in the UK and found that the motivation (especially for boys) and autonomy of pupils was increased, and participating teachers were boosted professionally both in skills and morale. We also found that the children on the scheme had markedly improved end of Key Stage 2 SATs results.

## **Decline and fall**

The project continued at the school, supported by Microsoft giving free software and networking opportunities. But, slowly but surely, the funding began to dry up, both from parents and externally. This can partly be explained by more people getting PCs and cheaper laptops and other mobile devices, making the AAL scheme less attractive. The use of laptops en masse was also being called into question due to the complications of weaving their use into the narrowing National Curriculum. Also, as the 2000s unfurled with further local management of schools (LMS) policies enacted, school budgets became tighter and made IT seem like an expensive luxury (which up to this point it probably was).

At the time we launched AAL we thought that computer suites in schools were very old-fashioned and would soon be obsolete. In reality, most schools still have them and they are timetabled for classes to use, rather than devices being used anytime, anywhere. Other hand-held devices with specific uses have also come into play such as those used in conjunction with a teacher's interactive white board. By 2010, I left the school and the school's e-learning foundation was wound up (as had the local authority's version some years earlier).

## **The early bird**

We had been classic 'early adopters' and had benefited enormously from this. We had raised the profile of learning in the community and had gained a national profile for our work – a far cry from being a down-at-heel anonymous school serving a disadvantaged estate in an unfashionable part of England. It helped to spur us on to other initiatives, which by 2008 culminated in a ground-breaking eco-building to replace the army camp, and a national reputation for developing sustainability in the curriculum, campus and community linked to the school improvement agenda.

We had only been partially successful at bridging the digital divide. Concern about this has re-emerged in the national media and highlighted the plight of families who have struggled with home learning during the pandemic lockdown. But really, this divide isn't 'digital' at all; lack of computers is just a symptom of a more deep-seated inequality of educational provision for disadvantaged families. These are the families who in 'normal times' can't afford to provide enough books, space in the home or access to many cultural and leisure facilities. They can't afford to employ tutors to help their children and, in some cases, cannot afford adequate nutrition and sleep so that children's learning opportunities are optimised. They have less access to 'successful' schools as measured by exam grades, and certainly less access to grammar schools, which the middle classes virtually have to themselves. They have miniscule access to the private sector that almost guarantees a smooth transition into higher education and highly successful and well-paid careers.

### **Electric dreams**

In retrospect, I have additional concerns that some in the primary sector are getting too fixated on technology (as I did). This fixation can neglect the importance of experiential learning. Young children (and I would argue children of all ages and adults for that matter), need less virtual reality and more 'real' reality. Invariably, they gain a love of learning and meaningful experiences through their heads, but also through their hearts and hands (Singleton, 2015). Perhaps we should worry less about getting IT devices into the clutches of every child and worry more about providing forest schools and other kinaesthetic and creative learning allied to aesthetic appreciation, as an integral strategy. Yes, children can explore the world through Google Maps, but it doesn't beat going out and map reading in a real space. It also doesn't beat the awe and wonder of finding a wood louse under a log, or seeing an amoeba through a microscope. Aesthetic appreciation of the arts and being able to participate in these is also vital, as is access to sports and other physical recreation (especially outside). Children might be able to succeed with a computer learning game showing them what things weigh, but that is a pale imitation of weighing real things on real scales with real weights. Playing football online is fun, but it doesn't replicate the visceral enjoyment and health benefits of the Real Thing.

### **Natural goodness**

For me today, 'anytime, anywhere learning' means developing children's perceptions of the world in order to be receptive to 'learning anytime' anywhere'. This means noticing things and being curious, questioning and critical. It also means having the ability to problem-solve by concentrating for long periods, rather than being hooked on the quick fixes provided by cartoonish screen time. It also means developing resilience, rather

than being pampered by nanny technology.

My work in developing sustainability in schools also leads me to doubt the technological fixes that are extolled in all areas of life. If we have ever more technology, the cost to the planet is great in terms of materials and energy and just helps the ‘rapidification’ of unsustainable lifestyles (see <http://www.gritfish.com/deep-ecology/principles-of-deep-ecology/2740-rapidification>). Perhaps we need a dose of the slow school movement (see [www.slowmovement.com](http://www.slowmovement.com)) laced with Montessori philosophy and practice to lessen the need for engaging in the technological arms race in education. I may be sounding like a proverbial ‘dinosaur’ and perhaps I should remember that when pioneering AAL, ‘I was the future once’. However, if nothing else, let’s all get off the treadmill and rethink some of the received wisdom (sic).

## Going viral

Covid-19 has exacerbated many social and economic weaknesses. These have ranged from the demise of shopping in the high street to the digital divide discussed here. The experience of the pandemic has called into question things which we thought were certain and given us fresh doubts about the future. What we need to be careful of is that in this context, we ask the right questions, and this is particularly true in the world of education. Should schools for instance be complicit in getting us back to ‘business as usual’, or should they be leading on a fresh assessment on what sort of world we would like and how education can help us achieve it? I believe that climate change and other environmental tipping points mean that the latter scenario should prevail.

So, let’s have some new zealotry not just for bridging the digital divide (if indeed this should be pursued as a priority), but to bridge the gaps between humans and the natural world, and between the haves and the have-nots in this globalised world. We have it within us to satisfy all needs and to guarantee everyone a decent quality of life not predicated on unsustainable production and consumption. But have we the collective will to achieve it?

## References

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