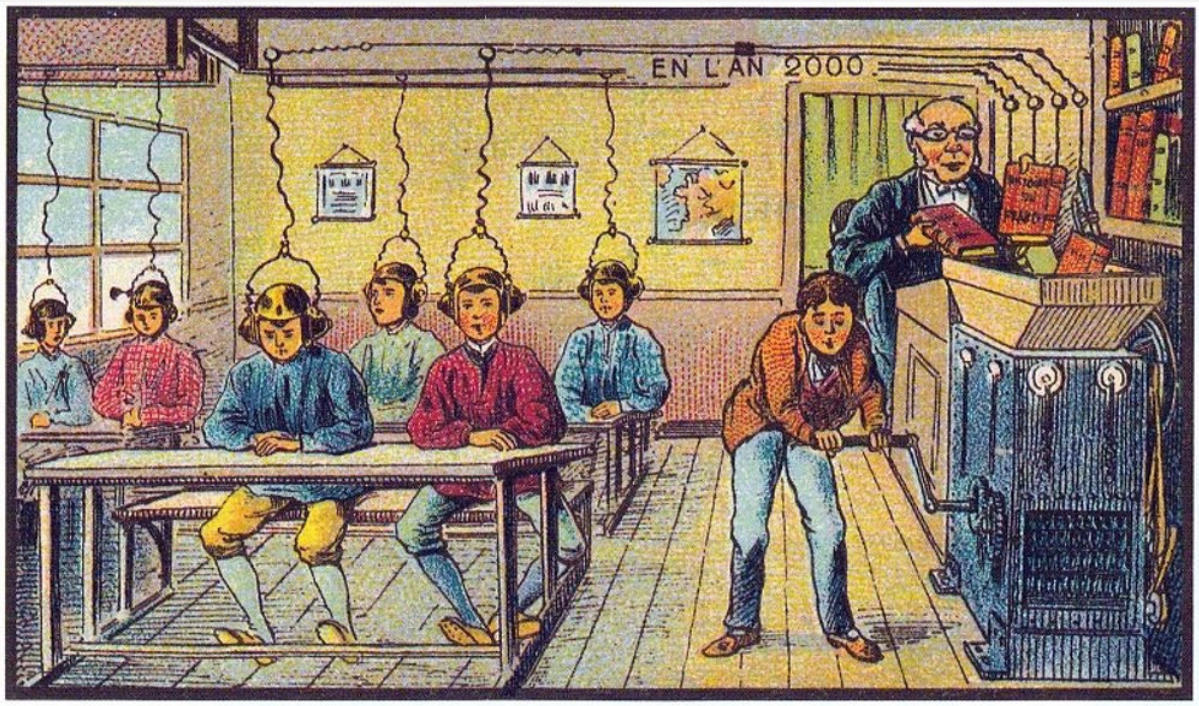

The Future of School from the 19th century

Why don't you design a school?

Graham Brown-Martin

If you designed a classroom, would it be a room?

Why don't you design a school? I'm often asked.

This has less to do with my skills as a designer and more to do with my talks calling for a re-imagining of schools purpose, of what we learn and how. Sometimes it's just a surly challenge to put my money where my mouth is.

Since the pandemic sent us all to our rooms to think about what we'd done we've been bombarded by a second pandemic of webinars, podcasts and virtual events. Some of these are great, some not so much. I guess we're all learning.

Something we've figured out is that online liberates us from the constraints of time, place and space. It's no longer necessary to stick to the 9–5. Suddenly we find ourselves in events with many more people in attendance, from all over the world, than had it been physical. If we miss something it's usually available as a recording surrounded by communities keen to engage and interact with you. What's more, I've found it's possible to sign up to multiple events running at the same time and then jump between them to hear the speakers I'm interested in. I'm unbundling the conferences and curating my own journey.

This has made me wonder about what an online "open school" could be.

I'm reminded of something the late, AI pioneer and learning theorist, Seymour Papert said when asked what 3 things he would change about schooling in the age of the personal computer. He replied,

"Do away with curriculum. Do away with segregation by age. And do away with the idea that there should be uniformity of all schools and of what people learn."

Let's call these Papert's 3 Principles (P3P).

Back in 2011, I was invited to give a TEDx talk in London themed around school design. I invited the audience to consider school design through the lens of different innovators from Steve Jobs to Frederick Taylor by asking the question, “if they designed a classroom would it be a room?”

How would you design a school? TEDxEastend recorded 2011

It strikes me that if we were designing a new kind of school for learners of all ages where the purpose is self-realisation we might not need rooms at all. At least not in the way we use them today. Perhaps we wouldn’t even call it a school.

As we know, there is a lot of difference between painting rainbows and building something new. During my career I’ve done both. Indeed, unless you let your imagination run wild as you paint metaphorical rainbows you’re unlikely to build anything that is truly new.

A school is a different kind of challenge however. When you design something, you start with its purpose and who it is for. When designing a school those two aspects alone open up a whole can of worms — particularly in the highly regulated and standardised space that we call education.

An unintended consequence of the pandemic was a rapid and unplanned shift to online teaching, sometimes euphemistically referred to as online or remote learning. Teachers, who’d

hitherto eschewed EdTech, discovered their school's Learning Management System (LMS) like it was a revelation.

It's just like teaching in a classroom (kinda) but it's online. We can distribute our powerpoint slides then talk over them using Teams/Zoom/Meet. We can even quiz the kids into submission using Kahoot!

This wasn't the kind of rainbow painting I had in mind.

These systems, like much of the EdTech thrown at kids and their parents during lockdown, are designed this way to virtualise the standardisation found in a classroom and make it easy for teachers to use. The technology changes education as a process as little as possible. It's why, for example, interactive white boards made little impact on teaching practice, iPads as textbooks made no impact on learning outcomes and smartphones were banned.

Let's take a moment to sidebar as we consider the difference between standards and standardisation.

We all want high standards for all learners. This is the basis of SDG4 after all. But standardisation isn't the same thing. Having high standards doesn't mean that we all reach them in the same standardised way. When a process is standardised, it can be repeated at a lower cost and performed at scale. Hence the value of standardisation in industrial processes to reduce cost and standardise output. But schools aren't factories —

standardisation in education narrows learner choice, curriculum, opportunity and value.

Put simply, standardisation empowers a process but it is standards that empower and protect the learner.

Because they rarely engage with this critical distinction bureaucrats and (ed)technocrats get excited about standardisation for education. After all, if you can standardise your high standards then you can roll it out and scale it as if it were software. Boom! Education Reimagined.

It's just a bummer that those pesky kids; with their ever-changing needs, unique talents, interests and dreams, aren't standardised too.

Sidebar done.

In England, the Department for Education were so enamoured with this technology, designed to reinforce rather than transform, they funded a new online school, the Oak National Academy and it's horrible.

Oak National Academy promotional video

I'm being churlish, after all ONA did receive recognition from the Prime Minister himself who awarded a "Points of Light" to the 80 teachers involved. In fact, the Oak National Academy

was a significant achievement, created in record time, that delivered precisely what it set out to do. An online school by teachers for teachers, as they say in their promotional video.

Oak National Academy - Points of Light
1391. Matt Hood Matt Hood, from London, is the Principal of Oak National Academy - the pioneering online teaching...
www.pointsoflight.gov.uk

This triggered much commentary including an article in The Guardian by former London commissioner for schools, Tim Brighouse, and emeritus professor of education at The Open University, Bob Moon. Brighouse and Moon call for the creation of an "Open School" along similar lines of the Open University. The OU, being my first employer, has a special place in my heart. It has without doubt led the way in distance learning providing access to so many people who would have been unable to attend a physical university. It solved the problem of credible accreditation decades before the arrival of MOOCs.

Like the Open University, we now need an Open School for the whole country | Tim Brighouse and Bob...
hen the Covid-19 emergency is over, schools will face a monumental task. Children who have been learning at home will...
www.theguardian.com

Wallowing in churlishness after a colleague forwarded me a link to the Brighouse/Moon article for my opinion I replied pithily, "*it's myopic*".

Perhaps I should explain.

There's a bunch of stuff that online really isn't good at — we'll touch on that later — but for now let's think about the upside.

Building online we can take time, space and place out of the equation, apply Papert's 3 Principles and create an altogether different learning experience.

Unencumbered by a 20th century examination system, tied as it is to the textbook industry and a late 19th century idea of education, we can de-silo everything and make learning an interdisciplinary collaborative experience.

Wait, what? Collaborative you say?

Yes, because learning, like teaching, is relational so done right it's an act of collaboration. If our purpose is self-realisation what we think of as teachers might just as well be subject specialists, inspirers and co-learners. Some of the things we might once have called lessons may be, not only pre-recorded but, produced at broadcast quality with the very best explainers. Think, David Attenborough or Brian Cox. Clips from some of the most inspirational people on Earth answer the, "*why am I learning this stuff?*" questions that every child asks by showing them what they can do with it. Think, Kathryn Sullivan, a geologist and first woman to walk in space.

In a peer-to-peer Social Learning Network (SLN) we're all co-learners and we don't need classrooms. Like Massively MultiUser Online (MMO) problem-solving games, think World

of Warcraft, learners of all ages from anywhere can form guilds trading knowledge and skills to solve challenges collaboratively.

In such a system, assessment is continuous and peer-reviewed; evidencing not only what its inhabitants know but what they can actually do with that knowledge.

Does this sound far-fetched?

I recently experienced the real-world value of working this way. As part of an interdisciplinary team with members working across the US, Europe and China we designed and brought to market a sophisticated new technology platform. This is what the future of work looks like.

pi-top[4] — an international project I worked on with a global team from 2017–2019

Look at YouTube or TikTok where people are learning how to make high quality programming that they evidence by publishing for assessment by their peers.

In an era of artificial intelligence and ubiquitous supercomputing asking learners to pass a pen and paper memory test; sitting a metre apart from each other, in total silence, is like the 21st century never happened. Furthermore, it doesn't tell us very much.

Removing the examination layer or at least making it optional means that the bottleneck of certification, often no more than proof you can memorise stuff just long enough to pass a test, is gone. Released from the tyranny of the measurement industry teachers are liberated to practice their craft and teach. In this world those who teach, can and do. Learning becomes a self-directed activity of discovery and a habit that lasts a lifetime.

During this pandemic we've seen that, done well, we can digitise, virtualise and scale a lot of the knowledge related aspects of learning. It certainly does it well enough to make some who think teaching is instruction nervous. Let's get those pesky kids back to school before they start thinking for themselves is one popular meme. However learning isn't simply knowledge mastery particularly when in the real world what you can do is valued more than what you can remember.

Papert originally saw the personal computer as a subversive instrument for learners, "*to work with and to think with, as the means to carry out projects, the source of concepts to think new ideas*." He said,

"The last thing in the world I wanted or needed was a drill and practice program telling me to do this sum next or spell that word! Why should we impose such a thing on children?"

Unfortunately, this is precisely where we've ended up. Papert lamented in 1993 that,

“Little by little the subversive features of the computer were eroded away: Instead of cutting across and so challenging the very idea of subject boundaries, the computer now defined a new subject; instead of changing the emphasis from impersonal curriculum to excited live exploration by students, the computer was now used to reinforce School’s ways. What had started as a subversive instrument of change was neutralised by the system and converted into an instrument of consolidation.”

Even when presented with the extraordinary possibilities of AI, technocrats and bureaucrats can only see how these technologies can be used to reduce costs and create efficiencies in teaching kids how to pass 20th century memory tests. In 2019, after AI engineers achieved the milestone of teaching an AI how to pass an 8th Grade science test the story was about replacing teachers rather than the science test.

Check out this conversation with educators and an EdTech vendor I participated in at the recent CogX AI Festival in June 2020.

AI, Education & Ethics featuring Alex Beard, Sir Anthony Seldon, Priya Lakhani and yours truly

Online or not, if we apply 21st century technologies to 20th century paradigms we end up with a system where learners, after reading a book and watching YouTube, could pass a

written test about swimming without ever getting wet. Excuse the metaphor but with rising sea levels this probably isn't a good strategy.

Wherever and whatever we're learning, we should be able to evidence this through practice that demonstrates knowing as a result of transference; by applying the information, strategies, and skills we have learned to a new situation or context.

It's in this area of doing, creating and making, getting outside and experiencing the world where our technologies for learning often disappoint. Generative learning, expressed by making useful new things and solving real challenges together, shows the weakness of learning management systems that reduce learning to consumption of content and instruction.

I surely can't be the only one during the pandemic who has grown tired of mediating experience of the world through a screen and a webcam. There are times where we must connect, collaborate and solve problems together in the physical world. We have to be able to do things together otherwise what's the point?

Assuming we could create a Social Learning Network at internet scale with universal access what then might we use our school buildings for?

Like the liberation of teachers and learners perhaps our public buildings could be liberated as places of care, inspiration,

shared exploration, discovery and collaborative creativity. Not just our schools but also our theatres, parks, libraries and museums. The city then becomes a playground.

Like our current education systems the above won't suit every learner — but it will go a long way toward that. If approached using universal designprinciples it could be accessed, understood and used to the greatest extent possible by all people regardless of their age, ability, disability, or any other factors.

You know, like all education systems should be.

Graham Brown-Martin
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