

Renegotiating learning in a hybrid world

CHRIS HARTE AND SUMMER HOWARTH



Author's acknowledgements

The authors would like to thank the following people for their unwavering support, inspiration, expertise and challenge in the preparation of this paper, we couldn't have done it without you: Kathe Kirby, Tony Mackay, Kimberley Hall, Jim Sill, Andrea Downie, Fabienne and Matt.



ISSN 1838-8566 ISBN 978-0-6454278-6-8

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The Centre for Strategic Education Mercer House, 82 Jolimont Street, East Melbourne VIC 3002

Produced in Australia by Centre for Strategic Education Mercer House, 82 Jolimont Street, East Melbourne VIC 3002

Editorial Team: Anthony Mackay, Keith Redman, Tim Clarke, Andrew Miller

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Introduction

The world is always in a state of flux. Very little remains constant except for the dislike we humans have of uncertainty, death and taxes. However, the reality is that we have always adapted, reimagined and renegotiated our position in the world, and our current lived experience is no different.

The nexus of technological development, connectivity, open, collaborative platforms and burgeoning learning ecosystems could not have come at a better time. The COVID-19 pandemic showed up our traditional school systems, assessment practices and metrics of success as woefully inadequate for today's dynamic and challenging world. This presented the much-needed 'case for change' for so many schools, systems and leaders, and provided an opportunity to test new ways of 'doing' formal education for all.

So many questions have been raised, accelerated or revisited by the pandemic, including deeply challenging provocations around equity, access to learning, remote schooling, exams, health, wellbeing, privacy and data, to name but a few. In many ways these provocations are not new. We have been thinking about the future of education in one shape or another for many years. The excellent work done by organisations such as the OECD on future scenarios of schooling¹ asked us to consider not only what a possible future might look like, but also challenged us to consider how we might co-construct a preferable future for education.

Many organisations, education systems, leaders and learners took hold of the opportunity for change that the last two years of disruption provided. In this paper we aim to reflect on and provide principles, provocations and practical examples around how we might renegotiate learning in a hybrid world.

A hybrid world

Words are important. They help us communicate clearly. By having a common language that describes a concept we are more able to collaborate, co-create and imagine possibilities. The problem with the term 'hybrid learning', which has been in common use in education since the 1990s, is that it means different things to different people.

For some, hybrid learning is synonymous with blended learning, remote learning, or online learning; ie, the use of technology is the defining feature. For others, hybrid learning is less about modality and more about pedagogy - learning design choices that are made in the creation of a learning experience – right down to the question of whether the learning is more effective when experienced synchronously or asynchronously.2 For others, hybrid learning means that there are different groups of learners that are engaging in the same learning experience in different contexts; ie, the challenge of having a class of learners where some of them are present in a physical classroom with a teacher while others are learning in a different place, perhaps isolating at home due to COVID infection.

In this paper we are putting forward the idea that **all of these scenarios** should be considered as different forms of hybrid learning. This broad definition of hybrid reflects the complex realities we are faced with in education and allows us to focus more closely on the variables we need to consider when designing learning that is rich in technology, complex in nature, synchronously (or asynchronously) occurring in a range of settings, and requiring nuanced learning design.

The purpose of education

Getting clear on what we mean by education, and what its purpose is, sets up this discussion. There are many purposes of that process we call education: from the traditional economic imperative of developing skills and preparing workers to work, to the practical custodial function of giving children somewhere to go during the day, to the role of education in inspiring a lifelong, lifewide love of learning and empowering different communities to have sovereignty over their own learning systems. All of these purposes have validity and it is not the place of this paper to explore their variations and nuances. However, we take a point of view on the purpose of education, in order to better express how we might negotiate learning in a hybrid world. Inspired by the OECD Learning Compass 2030 Framework³, we define the purpose of education as follows:

The purpose of education is to help learners develop the knowledge, mindset, skillset and toolset necessary to thrive in their transforming world and actively co-construct a flourishing, diverse and equitable society.

There is a lot to unpack in that long sentence. Let us distil, as follows, the key provocations it presents.

- Education is first and foremost about the development of individual learners to be their authentic selves and to support the collective good, so it should be both personalised and contextualised.
- There is more to education than knowledge. By embracing other vectors of learning (skillsets, mindsets and toolsets) we open up the possibility of individuals growing along each of these lines at potentially different paces.

- If thriving is a key outcome for education, we need to reflect deeply on what we mean by thriving and how it is reflected (in the words of Hannon and Peterson⁴) at the intrapersonal, interpersonal, societal and global levels.
- Thriving implies true equity, therefore education must seek to be truly equitable and to help develop humans who place value on equity.
- We are not solely preparing learners for the future; their contributions to the world are valid and valuable right now and education should be focused on empowering learners as agents in their world.
- A flourishing, diverse and equitable society is not an easy goal and must be constantly worked on by its citizens, through respectful dialogue and shared imagination.
- Education, school(ing) and learning are distinct, yet woven together.

While imperfect, we hope our definition of the purpose of education gives some context to the following exploration of how we might renegotiate learning in a hybrid world.

Purpose, agency and complexity

Now we have settled on a definition of the purpose of education, we need to turn our attention to the learner experience.

Purpose allows us to examine the structures that are intended to deliver upon the purpose, understand whether they are fit for purpose, and reimagine them if they are not. The challenge with current structures is that they are often rigid and unyielding, and are difficult to personalise to the myriad unique individuals who are part of the system, including those who are actively disengaged with the system.

If we are to boldly renegotiate learning in a hybrid world, then we must place individual agency at the heart of our negotiations.

Agency has been defined in many ways. In the context of this paper, agency is a combination of learners having choice, voice and responsibility in their learning (see Figure 1).

Learner choice may be expressed over curriculum content, learning processes, products that are created to demonstrate learning, resources, time, space and place.

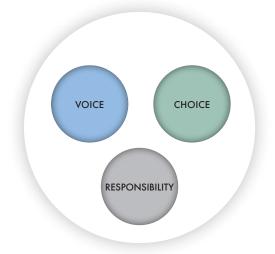


Figure 1. Empowerment through agency

Learner voice may be in the form of feedback on learning or perhaps coconstruction of learning outcomes and co-design of learning experiences.

... how do we ensure that we renegotiate learning in a hybrid world based upon an authentic purpose, which has learner agency at its core, and which is reflective of the complexities of learning, while avoiding being overly complicated?

Learner responsibility is often the part left out of definitions of agency, but it is key. With more power over learning comes more responsibility. It is essential that we create learning experiences where learners learn about, apply and reflect upon the selfregulation skills needed to practise agency and thrive while doing it.

This approach to education is complex. Life and learning are complex, so it is only natural that the systems and

structures we build to support education reflect this. It is important to note, however, that 'complex' and 'complicated' are two different things. When we look at a traditional assessment system of coursework and exams to measure learning, the simplicity of this approach does not reflect the complex nature of learning and the numerous different proxies for learning that can give a much more complex picture of learner growth.

So, how do we ensure that we renegotiate learning in a hybrid world based upon an authentic purpose, which has learner agency at its core, and which is reflective of the complexities of learning, while avoiding being overly complicated? That is the question we can all reflect upon together, which enriches any discussion about how we might renegotiate learning in a hybrid world.

Enabling factors for hybrid learning

Before exploring these variables, let us first consider the enabling factors that must be in place to support optimum learning in a hybrid scenario, where digital technology may play a key role.

We assume that effective hybrid learning requires:

- Connectivity access to the internet for the purposes of gaining information, but also to allow for collaboration, communication and accessing expertise from anywhere in the world;
- Device learners have a device with which they can safely and securely connect to the internet to create, collaborate and consume knowledge;
- Platform learners have access to a learning platform where they have an identity, can create and share content, collaborate with other users and engage in a structured learning experience. Google Workspace for Education is an example of this.
- Pedagogy educators designing learning in a hybrid environment focus on evidence-informed pedagogical approaches that work effectively in a digital-rich environment and an analogue learning space;
- Capacity educators and learners have the skills to use technology effectively for their learning goals and to act as agents in their own teaching and learning.

If an education system were to be audited based on its readiness to support hybrid learning, it would be worth considering the above enabling factors.

Variables

Hybrid learning variables are the values that may change depending on the context of the learning. This is important. As we design learning experiences with and for our learners, we can identify and influence the different value of each variable to create a unique experience for each learner.

Figure 2 shows the five variables we examine in this paper (although there are undoubtedly others). Let's examine each variable in turn and explore some of the implications they have for our learning ecosystems.

Place

The places where learning occurs are myriad. Any experience we have that gives us new knowledge, which helps us develop mindsets, or allows us to practise our skills and apply new tools, should be considered a learning experience – wherever it occurs.

As Tony Dreise positions it, 'Place' is more than geography.⁵ It has multiple dimensions, applications and interpretations, including cultural, economic, social, political and educational.

This is a fundamental consideration at every scale of education, considering the impact place has on the learner and the teacher. By assuming that 'school' in its traditional forms is the only place where valid learning can happen is at best misguided and at worst assimilative. In Australia, the National Indigenous Youth Education Coalition⁶ has, as its purpose, the aim 'to mobilise Aboriginal and Torres Strait Islander youth to drive a new education ecosystem where we can govern and self-determine an education of our own design, for the future of our Nations.' Recognising that the places of learning are many and equally valid is a step in this direction.

Globally, across formal education systems, we still most often see 'school' as the place where formal and therefore valid learning occurs. This system is thrown into chaos once a flood, fire or pandemic impacts learners' capacity to physically attend school.

At the height of the COVID-19 pandemic, around 1.5 billion students were essentially evicted from their physical school grounds and forced to learn somewhere else. In addition, children who have long-term



Figure 2. Hybrid learning variables

illness may need to work from hospital, and other young people may be learning while incarcerated. One story shared by a colleague in the New York City school system shows both the power of technology and the strength of humans to learn in adversity. When lockdown hit, students were allowed to take their Chromebooks home and learning tasks were posted for them on Google Classroom. One of the advantages of managing Chromebooks centrally is that the administrator can flag the network types to which the device is connecting. In NYC the administrator found a large number of students connecting to public WiFi with their Chromebooks and, upon investigation, found one young man whose single-parent had died, was living alone, had not paid the internet bill and was going into the NYC Subway in order to connect to the WiFi and continue his studies.

There are also stories of learners who have been connecting to formal education in remote modalities for decades, in areas where the school-age population is too small for a conventional school to be viable or where learners live in very remote settings. For over 70 years, Australian learners have tuned in and completed formal studies conducted by radio, telephone and internet services, and connected with services such as the Royal Flying Doctors to obtain essential resources and classwork. With collaborative online tools and leaps in broadcast technology, the learner experience is more connected than ever. Interestingly, when considering achievement and impact, a 1987 study showed that such education has parity with, if not better standards than, traditional methods of schooling.7 Many systems and schools looked to the model of the Australian School of the Air to adapt practices in teaching and learning across school lockdowns in 2020/2021.

Allowing the school fence to be porous to the outside world, and to broaden the map of places that formal learning can occur, is becoming more common. At XP Schools in England, every student, every week has a learning experience offsite, in the local community, in workplaces or in museums. Learning happens anywhere. Indeed, the first experience of learning that students and teachers have at XP Schools is a week of outward-bound activities; camping, abseiling and building up the sense of belonging or, as XP say, their sense of 'crew' that sets them up for learning anything, anywhere.

Emerging Sciences Victoria, an online science school that runs out of John Monash Science School in Melbourne, showcases the opportunity to involve experts from across the world in everyday learning. Two highly skilled teachers based at the school run two hour-long lessons per week in subjects such as Nanotechnology, Medical Physics, Bioinformatics, the Nature and Beauty of Mathematics, Earth-Saving Science, Astrophysics and Indigenous Science. Each semester-long subject has students from across the state of Victoria participating, collaborating using Google Workspace, building relationships and connecting with other students and experts who are passionate about science. Some of the learners are in their own school's library, the Principal's Office or at home; the place of learning does not matter as much as the learning they experience.

Being thoughtful about place when designing learning experiences allows educators and students to be much more flexible, creative and connected in their approach to working and learning. In its 2017 report, Getting Smart defines Place-Based Education as 'an approach to learning that takes advantage of

geography to create authentic, meaningful, and engaging personalised learning for students.'9 Place essentially personalises learning and has the potential to deepen the connection between mindsets, toolsets, skillsets and knowledge. Simply, once connected to a sense of place, students have the foundation to explore their learning. This cements place as an essential element that helps learners tune into a hybrid learning situation.

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One of the interesting system-level implications of this is workforce. What happens if all teachers do not need to work in a school all of the time? What happens when you diversify the workforce by having teachers specialise in different aspects of education: those who favour working face-to-face with learners every day; and those who

enjoy orchestrating a purely online learning experience? Does that present an opportunity to fill workforce gaps? Would more flexibility to teach from home encourage educators raising a young family to continue to teach? Or might it help to connect remote and regional communities with expert teachers who are not available in their physical location? A recent survey by PWC Australia found that 74 per cent of Australian respondents reported that they wanted a mix of face-to-face and remote working, to differing degrees. 10 Teachers and school leaders are some of the only workers who went right back into full-time face-to-face work post pandemic. There is a lot to be said about the potential and possibilities of changing the place of where education 'happens'.

Space

Closely coupled with the concept of place is the concept of space. In this paper, when we refer to space in the context of hybrid learning, we are really thinking about the level of digital technology designed into the fabric of the learning experience.

On the space axis, we can imagine learning experiences that have a purely analogue basis (post-it notes and butcher's paper anyone?) through blended use of technology (photos of post-it notes captured digitally) through to purely digital experiences (digital post-it notes on a Jamboard¹¹). While this example shows the same fundamental learning experience (collaborating and sharing ideas on postit notes) and the use of technology is certainly not transformative in and of itself, the learning is basically the same. When we combine **space** with **place**, however, we begin to see the additional benefits of a hybrid model. There is a very real scenario where an educator may be physically in a school with learners using paperbased post-it notes while simultaneously collaborating via digital tools with another group of learners online who are physically in very different places. The technology may not have transformed the learning experience, but it has created greater levels of access to that learning.

The value and uniqueness of learning in analogue spaces and in digital spaces is not in dispute here. Both bring things the other cannot and therefore it is important to blend these approaches. No matter how good your virtual reality headset, the smell of learning on a farm, the challenge of abseiling from a cliff and the joy of sculpting clay cannot truly be replicated. Equally, using augmented reality is simply not possible in a purely analogue sense.

Think of the possibilities of using Google Arts and Culture to place Van Gogh's 'Starry Night' on the wall of your lounge, collaboratively create 3D sketches of an idea with someone on the other side of the world, or use Google Earth satellite imagery to run a stop-motion animation of receding ice floes.

A powerful example of this is the PNGAus Partnership Secondary Schools initiative that partners 12 Australian and 12 Papua New Guinean schools to explore STEM, Literacy and capabilities like Design Thinking. ¹² To witness 180 students engaging in a design sprint to improve water, sanitation, hygiene and wellbeing in their schools across Google Meet, uploading their solution sketches to a Jamboard for digital critique, and creating video pitches to share with each other, shows the power of **space** when designing hybrid learning experiences.

Access to knowledge is much less of a problem today than knowing what to do with it. Knowing how learners want to use different spaces means that schools can reimagine what the 'classroom' and 'staffroom' look like. They can then strategically consider physical and non-physical

elements to cater for where learners and teachers want to be, to do a range of tasks, both operational and pedagogical – for example, better tech for solo virtual work, more collaboration hubs in physical sites, wellness spaces for mental health, or open collaboration rooms (physical and virtual) for strategic or project-based work. Physical flexible learning spaces are not new. They are common practice in some schools and universities, but the codification of purpose and purposeful layering in of a digital dimension enrich the concept of hybrid learning spaces.

Time

In the midst of the COVID-19 pandemic the words asynchronous and synchronous were used at an unprecedented volume when talking about learning. What is the role of time when learning? Do students always need to learn at the pace of the teacher and their classmates, or is there an opportunity to explore asynchronous learning opportunities? What might be the different desired learning outcomes that influence the choice of synchronous or asynchronous learning experiences?

The acquisition and consolidation of knowledge is a very valid desired learning outcome and there are many opportunities to have an efficient learning experience in an asynchronous manner. This is, after all, about an individual learning, practising, applying and retrieving knowledge from ever-strengthening mental schema. There is clearly a role for other people, teachers and peers, to be involved in this learning, but it does not have to be synchronous, and the pace can vary depending on the individual. When we combine this idea of **time** with the concept of **space** we can start to see the real value of the digital space to support asynchronous learning. There are millions of hours of valuable input materials on YouTube; you can watch a Harvard professor explain quantum physics or learn to count with Big Bird and the Count on Sesame Street. Access to knowledge is much less of a problem today than knowing what to do with it.

What about the knowledge that learners do need to internalise so that they can build strong schema, retrieve information quickly and apply that knowledge critically, creatively and wisely? There are already examples of AI-driven software, Google Practice Sets being

an example, where students can study, answer questions, receive instant feedback and AI-informed feedforward, showing the students where they may have gone wrong and suggesting resources to help them rectify any misunderstandings. This formerly time-consuming but important feedback loop does not exclude the teacher, but rather provides learning data directly to the teacher to show what they may need to re-teach, or indicate when to push individual learners forward. This allows the teacher(s) to focus on the work that they can do that machines cannot, namely building strong coaching relationships, supporting learner growth with humanity and empathy, and inspiring learners to achieve more than they thought themselves capable of.

People

The traditional view of **people** in an education system, especially in a school system, is that of a teacher and their students. The role of the teacher in this scenario is already deeply complex: they need to understand what to teach; how to teach it in a differentiated and personalised manner; how to identify learner growth; how to provide feedback and feedforward; how to build relationships; how to manage behaviour and support trauma; how to coach; how to create a culture of learning; how to complete administrative tasks: how to be an advocate for learners: and how to collaborate with parents and carers - and all of this before morning tea. Layer into that the complexity of the hybrid world and we soon understand the immense pressure on our educators. Unfortunately, this pressure is being released by ever-increasing numbers of educators leaving their careers after only a few years, and by fewer graduates choosing

teaching as a career pathway. To be very clear, technology and AI can be helpful in learning, but can never replace the immensely complex and important role of a teacher. If systems fail to renegotiate learning in a hybrid world and teacher attrition continues, we are in serious trouble.

So, how can we shift some of that pressure from the single node of a teacher out to a wider ecosystem that can support and enrich the learning experience? How can we connect learners and educators to other sources of learning that are considered equally valid to the learning that happens in a school? How can we credential 'non-classroom-based' learning so that its value is recognised as part of the learning journey and integral to the learning profile of a student?

Learning Creates Australia, 13 along with many other global organisations, has been examining this challenge in detail. The emerging picture is that while there will always be a key role for a physical, central hub for learning (whether that be a school or a community space), the capacity to use technology to connect with other learning opportunities and have them validated as part of the learner journey is growing. Just look at all of the online courses that are available, often for free, and the capacity to access other people – scientists, authors, elders, artists across the world – to learn from them.

This does raise the question of equality and equity. It feels right to argue for equality, where every child has the same curriculum, structure and methods of assessment; it appeals to our sense of fairness and makes sense. However, in our actual lived experience, we know how deeply inequitable this egalitarian system is. If we can embrace the potential for hybrid models of learning to create more equitable systems of learning, where a free asynchronous online course in Computer Science, or a learning experience in the Australian Outback, are valued as much as a two-hour exam in a pollen-filled school hall, then we can start to build equity that is beyond equality.

Moreover, as we start to recognise that the learning ecosystem is much greater than a single classroom or even a single school system, and we start to validate learning from other people, then perhaps we can refocus and reimagine the role of educators in a way that actually recognises, compensates for and celebrates the incredibly complex nature of their vocation.

Power

When differences in power are unacknowledged and unaddressed, the people with the most power have the most influence over decisions, regardless of the quality of their knowledge or ideas. To change that, we must share power in research, decision-making, design, delivery and evaluation.

K A McKercher¹⁴

The notion of power is tied up with that of agency and control. In our human quest for certainty, power imbalances can be mindfully or unconsciously skewed in particular directions; albeit with

(assumedly) good intentions. The flow of power in education has traditionally been weighted in the favour of adults and those with leadership titles. Revisiting the notion we

introduced earlier of student agency, it is important to note that all students intrinsically have agency – just watch them in the playground. The challenge is around the level to which it is empowered by the structures put in place. At the root of empowerment is power, which works to shape the experiences of every individual within systems and organisations such as schools; so it is an incredibly important factor to deliberately and carefully consider in any situation, and certainly one that can be balanced effectively in a hybrid world.

In a designed learning experience that leans into technology, it can be as simple as giving choice over product. Perhaps all of the learners study the same content (from the curriculum or from the local context) and do so using the same processes (direct instruction, inquiry, collaboration), but they are empowered to demonstrate their learning growth in any way they want to. Essays and exams are an often-preferred proxy for learning, as they are easy to compare and assess, but why should every child demonstrate their learning in the same way? Technology, both digital and analogue, allows for the collaborative creation of infographics, videos, interactive stories, artwork, data visualisations, websites, blogs and more. These artefacts not only demonstrate the intended learning outcomes of the task, but also encourage parallel complex competency development (critical thinking, creative thinking, communication, collaboration et al) and allow these proxies for learning to have an authentic audience beyond the teacher, and to form part of the rich portfolio of learning that can be used as evidence of learning growth. This simple shift of power in a hybrid world can have a profound impact on learning.

In a designed learning experience that leans into technology, it can be as simple as giving choice over product. In the following example, this re-shifting of power towards the student side, coupled with the alignment to a hybrid approach, showcases the positive impact of empowering agency in learning design, on an even larger, system-level learning experience.

The Northern Territory Learning Commission (NTLC) is a collaborative initiative providing an opportunity for students to grow their agency through analysing their school's data, co-planning and co-implementing a project with the goal of improving learning at their school.¹⁵ The NTLC for 2020 was planning to involve seven face-to-face events. The first twoday workshop in February of that year, collaboratively facilitated in both Katherine and Darwin, went ahead as planned. As the state borders closed a month later, the event involving all students, principals and teacher commissioners analysing their data was moved to an online format, and successfully co-designed with students across the project.

Why this is an example of a balance of power is due to the overwhelming demand of student commissioners to 'find a way' for the commission to continue without the face-to-face support of learning partners or events. All partners involved in the project committed to a true co-design process, co-design being about challenging the imbalance of power held by individuals through designing with, not for.¹⁶ The loaded demand side from students drove the creativity and resourcing of the NTLC in 2020 and beyond to develop truly hybrid ways of keeping the learning going. The online versions of what were traditionally face-to-face events comprised both whole-group instructional elements, and follow-up by supporting individual

schools in virtual breakout rooms for clinic-style expert meetings. Differentiated instruction continues to be available for the schools, with a choice of electing to join workshops dependent on the stage of their project, as aligned with the Northern Territory inquiry cycle, and forging ahead for those with well-developed projects. The benefit of this type of format has been the increased ability of schools to share their work and thus share ideas more freely, as some of the projects have a focus on common goals, such as improving feedback, meta-cognition and writing.

What has ensued with the new model of NTLC delivery is a growth in program membership from 11 schools in 2020 to 32 in 2022 as students and schools are more autonomous in their directions, sharing ideas and insights across and within a classroom, which makes cross-school work more visible. Schools and leaders can then utilise partnership/expert support in more nuanced and personalised ways. Shifting the balance of design power and ownership of the program governance from teacher (including expert partners) to students has had significant impact at a school scale, with system-wide implications of enacting strategic goals of students at the centre of the system/learning.

Implications of adopting a Hybrid Learning model

At a system level

An education system has the ultimate responsibility of nurturing learners through policy, finance, training and more, ensuring that the enabling factors are in place to allow the agents in the system (administrators, principals, teachers and most importantly, learners) to thrive.

System and policy leaders can consider Hybrid Learning as an opportunity to grow equity and access in their contexts, activate learner and teacher agency, and consider the possibilities associated with workforce growth and retention.

Perhaps using a
Learning Ecosystem
Health Index to set
policy might be a very
useful exercise for
systems to undertake.

There is an opportunity for those who shape education systems to step back and look at the complex hybrid nature of learning that now presents itself, and to explore the question of a learning ecosystem. Schools and communities must continue to be an essential part of that

ecosystem. Teachers must always be part of that ecosystem as learning experts and advocates for young people. Learners must always be at the very heart of the ecosystem because their education impacts generations of humans to come. If we zoom out a little, however, and start to consider how a hybrid model can allow for a more complex and more equitable system, then we need to seek strong partnerships with industry, cultural institutions, enterprise and environmental organisations who might be able to provide key learning opportunities for young people and have them validated and credentialled to demonstrate the worth of an ecosystemic learning system.

In the same way that 'schooling' is often tethered by the way we measure success at the formal end of school - Grade Point Averages (GPAs), Australian Tertiary Admission Ranks (ATARs) and percentages - systems are tethered to global measures of success. To take a body health analogy, the PISA ranking (OECD's Programme for International Student Assessment) of a country might tell you the blood pressure of a learning ecosystem at a specific time, but it tells you nothing about bone density, body fat, white blood cell count, etc. If we consider some of the indices of a healthy learning ecosystem, we might consider looking at PISA and TIMSS (Trends in International Mathematics and Science Study) of course, but we should also be considering the other measures: access to credentialled learning for young people not in formal education, employment or training; access to technology, connectivity and learning platforms; the balance of the curriculum across fundamental literacies, art, humanities, science, technology, health and wellbeing; and even the joy students and educators feel as part of their learning experience. Again, this opens up systems to complexity, but this is the reality we live in. Perhaps using a Learning Ecosystem Health Index to set policy might be a very useful exercise for systems to undertake.

For schools and school leaders

At a very practical level, schools considering a hybrid approach could first identify and develop the enabling factors (connectivity, device, platform, pedagogy and capacity) and, in parallel, explore the depth and breadth of the learning ecosystem they can access. Is there a tweak to the timetable where Thursday is a hybrid day, with older learners learning in a place that works for them and younger learners supported in accessing asynchronous learning experiences in school, guided by their teacher? Can we

find a fortnightly opportunity to make the school porous to the world outside its walls, through immersion experiences in local industries, expeditions to local areas that are environmentally endangered, or having students participate in community service projects? Does our school have specific expertise that could be shared with other learners in other schools via a synchronous online experience (like Emerging Sciences Victoria, for example)? Can we build workforce flexibility and allow teachers and older learners to be flexible where they work? With a digitalfirst pedagogy, can this become a real possibility?

It will take both systemic and local leadership to renegotiate learning in a hybrid world.

In teaching practice

In order to undertake our core business of teaching, we must create experiences with intent, designing learning that is meaningful and purposeful for our students. Our work requires conscious effort, is researchinformed and cross-disciplinary. In and of itself, it is an act of design.

We are designers because we are constantly working to add value to the lives of our students through the experiences that we engage them in. We know our students and their needs. We carefully consider the environment and resources available, consider and anticipate the potential outcomes that might result, execute our planning, reflect on the outcome, refine and then act again. 17 Teaching takes place by design. Learning takes place through design and, ever more importantly, codesign. Design is deliberate and the true benefits of hybrid learning can only be realised through a planned and nuanced way of considering and applying a complex set of variables.

Practically, this might mean starting with a digital-first pedagogy, where some students might be physically in the same place with you while others are working virtually and connecting over video and via online platforms. The underlying analogue pedagogy might well remain the same, but reimagined in hybrid form.

This reimagining of the teacher role cannot be seen as doubling the workload for teachers — everything must be done at a school and system level to create the time and incentives for teachers to work in a different way. There are many ways to reduce workload: centralised, adaptable resources, ideas and learning design plans, and co-teaching as the norm; AI-supported automation of assessment and feedback. Given the opportunity, support and trust, teachers, schools and systems can design flexible ways of 'doing' education that are sustainable and even deeply enjoyable.

For the learner

A great deal of research and discussion in psychology and education has focused on resilience, but very little has focused on how humans are specifically able to adapt. There is a clear difference between the two: resilience being multifaceted and referring to individuals' capacity to deal with adversity, while adaptability refers to their capacity to respond to uncertainty and change. Research (and practice) shows that our learners can successfully adjust their behaviour, their thinking and their emotions. This was of course evident across the COVID-19 lockdown timeperiod. It is argued that resilience cannot be taught as an individual trait. Young people can however be taught how to be more adaptable, and therefore better able to face the realities of our volatile, complex, ambiguous and beautiful world. Hybrid learning presents a clear opportunity

to build adaptability toolsets, skillsets, mindsets and knowledge sets. Adaptability is powerful and has been shown to be a better predictor of critical outcomes – including participation in school, being more satisfied with life, having higher self-esteem, and having a more concrete sense of meaning and purpose in life – than resilience.¹⁸

Hybrid learning presents a clear opportunity to build adaptability toolsets, skillsets, mindsets and knowledge sets. By building the capacity and placing the trust in our learners and recognising each individual's uniqueness, education systems, schools and communities can support each learner to thrive.

Conclusion

The complexity of our world is growing and our learning systems have proved brittle. If we are to thrive globally as humans, education is a key part of that. Hybrid learning is not about assimilating all communities and individuals into one way of 'doing' education, but rather much more about creating systems that allow for equity, autonomy, personalisation, agency and joy in learning growth. Hybrid learning allows us the flexibility to acknowledge, validate and celebrate learning, wherever and however it happens. This approach to learning is happening in pockets all around the world, but it is the responsibility of education systems to create the enabling factors that allow a renegotiation of learning in a hybrid world.

Endnotes

- 1 oecd.org/education/back-to-the-future-s-of-education-178ef527-en.htm
- $2\quad \text{There is an excellent summary of this challenge in the article accessible at er.educause.edu/articles/2020/10/the-landscape-of-merging-modalities}$
- 3 oecd.org/education/2030-project/
- 4 And, for further details, see Hannon, V and Peterson, A (2021) Thrive, Cambridge University Press, Cambridge, UK.
- 5 Putting place at the heart of Indigenous education: acer.org/au/discover/article/putting-place-at-the-heart-of-indigenous-education
- 6 niyec.com/our-story
- 7 See Imamura, E (1987) In Conventional and Nonconventional Schooling: A Comparison of Pupil Performance in Rural Schools and Schools of the Air, University of Western Australia.
- 8 See site at xptrust.org
- 9 What is Place-Based Education and Why Does it Matter? Accessible at gettingsmart.com/wp-content/uploads/2017/02/What-is-Place-Based-Education-and-Why-Does-it-Matter-3.pdf
- $10 \ \ Rewriting \ the \ Future \ of \ Work \ with \ Hybrid \ Workplaces. \ Accessible \ at \ pwc.com.au/digital pulse/report-future-of-work-hybrid-working.html$
- 11 Digital whiteboard, allowing collaboration.
- 12 www.dfat.gov.au/publications/development/pngaus-partnership-secondary-schools-initiative-pass
- 13 learningcreates.org.au/
- 14 What is Co-Design? by K A McKercher. Accessible at beyondstickynotes.com/what-is-codesign
- 15 See teachermagazine.com/au_en/articles/student-agency-in-action-in-the-northern-territory
- 16 Inspired by the work of K A McKercher, accessible at beyondstickynotes.com/about
- 17~~See~ Taking the Pretty out of Design~by~Kate~Manners.~Accessible~at~medium.com/@mannersk/taking-the-pretty-out-of-design-8e18a9dd367c
- 18 Referencing the work of Andrea Downie, Project Thrive. Accessible at projectthrive.com.au/andreadownie





CHRIS HARTE AND SUMMER HOWARTH

About the authors

Chris has a passion for learning and an unwavering belief in the potential of young people to save the world. His work allows him to help people get unstuck and design formidable solutions to the challenges they face. He is currently working at Google for Education, supporting Governments to explore the role of technology in underpinning healthy learning ecosystems.

Summer has been working in education for over 19 years as a teacher, education leader, policy maker, advocate and facilitator of learning for students and professionals across every system and sector in Australia. With expert knowledge in learning experience design, design thinking, middle years schooling and environmental education, Summer has taught in schools across Australia and the USA and is focused on work around Student Agency and Workforce Capability to ensure every learner is successful.

About the paper

The authors reflect on principles, provocations and practical examples around how we might renegotiate learning in a hybrid world. They argue that a broad definition of hybrid reflects the complex realities we are faced with in education and allows us to focus more closely on the variables we need to consider when designing learning that is rich in technology, complex in nature, occurring in a range of settings and requiring nuanced learning design. They explore the purpose of education; the significance of agency and complexity; key variables; and the implications of adopting a Hybrid Learning model. They conclude that systems need to create the enabling factors that allow the renegotiation of learning in a hybrid world.





Phone +61 3 9654 1200 Fax +61 3 9650 5396 Email info@cse.edu.au

ISSN 1838-8566 ISBN 978-0-6454278-6-8