

PROFESSIONAL Educator

2018 Edition 2 Volume 19

Australian College of Educators



Lifelong learning



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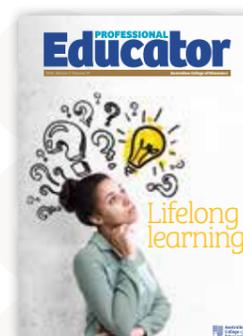


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EDITORIAL

Lifelong Learning

Dr Julie Rimes FACE Editor



As 2018 draws to a close, it is appropriate that the final edition of Professional Educator for the year is themed Lifelong Learning. As College members we are aware of the need, and benefits, that derive from Lifelong Learning whether it is formal, informal or non-formal. You are probably reading this now because you have a desire to continuously building skills and knowledge throughout your life.

As educators, whether we are just starting our careers, mid-way through or 'tapering off' to retirement (and we all know educators never retire!) we, more than any other profession, work in a world where lifelong learning is the cornerstone of what we do.

To this end, the contributors to this edition of Prof Ed come from a diverse and eclectic mix of backgrounds, specialisations and perspectives. That said, they all have one thing in common – the acknowledgement and acceptance that lifelong learning is not just a necessity it is essential!

Dr Norman McCulla, FACE, opens the conversation with an insightful challenge to readers to re-think lifelong learning. The article questions the aspiration of lifelong learning and puts forward a range of ideas regarding what it really should mean in a truly practical sense. Dr McCulla considers the economic, social and personal implications of lifelong learning across formal, informal and non-formal learning and the implications our 'new world order' has, or should have, on professional learning and career development for teachers.

In 'Lifelong learning: is there a choice?' by long serving ACE South Australia member Dr Lynda MacLeod seeks to shift discussion from the 'why' to the 'what' and 'how' that she believes should drive learning throughout life. Taking into account the projecting nature of education in our modern society, that is anticipating what skills are going to be needed for the jobs of tomorrow, the article investigates the opportunities and challenges that digital technology will have within the education space not only within our formal learning structures but more broadly throughout life.

Associate Professor Justin Reich in his article 'Lifelong learning in the Digital Age' further explores the inter-connectedness of teaching, learning and knowledge exchange in a digital age. Drawing on the work from the philosopher and social critic, Ivan Illich, Associate Professor Reich provides an perceptive critique of Learning Webs and the incorporation of lifelong learner networks into education systems that have been 'honed and cemented in an analog age'.

Lifelong learning has broader applications and implications than those we might traditionally think of when discussing education in formal, informal and non-formal



ways. Lifelong learning also has significant implications for people who have different abilities to those we traditionally see in more formal education settings. The articles by Professor Robyn Wallace and Professor James Vickers explore the practical positive impacts lifelong learning can have on people living with intellectual disability and dementia. Professor James Vickers article on recent findings of educational interventions for dementia and brain protection explores the possible health benefits of lifelong learning on an aging population. More specifically, Professor Vickers highlights the positive work being carried out by the Wicking Dementia Research and Education Centre in relation to people living with dementia, their families, carers and the aged care workforce. The Tasmanian Healthy Brain Project, the flagship research project of the Wicking Institute, focusses on the benefits of later-life learning and the article provides some interesting reading into the ways this project is having a positive impact on the participants as well as the broader societal implications.

Professor Robyn Wallace highlights the many challenges faced by people living with an intellectual disability in her article 'Lifelong learning for people with intellectual disability'. As a specialist physician in Internal Medicine, Professor Wallace explores the notion and pragmatics of lifelong learning for adults with intellectual disability and raises a number of key questions relating to the provision of learning opportunities to this unique and special group within our communities.

We also have a number of opinion pieces in this edition ranging from Sophie Fenton's take on teaching humans in a world of smart phones and talking homes, to Vicki Greer's article exploring the need for students to be well versed in the skills necessary for a post truth future. Daryl McCann and Stephen Powell have contributed interesting pieces relating to the teaching of history and controversy specifically related to World War II and the Holocaust. Publications Working Group member, Dr Bruce Addison rounds out our opinion pieces with some musing entitled, 'A nonagenarian, slow cooking and more than a hint of disruption: Lifelong learning in uncertain times.'

Finally, there is a three-part discussion addressing the seminal question: 'What does lifelong learning mean to me?' Patrick Hii provides his perspective as a pre-service teacher, Dr Matthew Norris puts forward his thoughts as an early career educator and Kim Cohen gives an insightful view from a career educator and school principal.

This is a big edition which explores the concept and practicalities of lifelong learning from diverse perspectives. I hope you enjoy this edition and it goes some way to continuing to encourage you to forge on in your endeavours as lifelong learners!

they all have one thing in common – the acknowledgment and acceptance that Lifelong Learning is not just a necessity it is essential!

PRESIDENT'S COLUMN

Dr Phil Lambert FACE, PSM National President and Chair Australian College of Educators



We are just about at the end of another year and I cannot think of a better final edition of Professional Educator for 2018 than one focussed on Lifelong Learning.

As educators, we are in the business of learning. Our diverse, multi-faceted profession is testament to the fact that learning, which starts pretty much from day one, follows many and varied paths for everyone but there is one common thread, learning must be lifelong.

It follows that, throughout our professional learning journeys, we all require support and connectivity if we are to truly embrace the mantra of lifelong learning. As educators, I would argue that we, more than any other profession, must be champions as well as students in our quests to be lifelong learners and encourage and develop this culture in our classrooms, our schools and the organisations we work for and with.

What is clear from the feature articles and opinion pieces contained in this edition is that learning, now and in to the future, will continue to evolve, develop and adapt to the changing dynamics of the world in which we live (and teach). As educators, we know there is no longer a one size fits all approach to learning (if there ever was?) and that we, as professionals working within the education arena, must take ownership of and lead the way in which education (and learning) evolves in Australia.

Reflecting on each edition of Professional Educator always brings me back to the importance of the Australian College of Educators and the role that ACE, through and with our members, must play in ensuring the recognition and advancement of the teaching profession across all systems, sectors, subjects and levels.

As we close on yet another busy year and we work towards a truly significant milestone for the College in 2019 – our 60th Anniversary of serving, supporting and representing the teaching profession in Australia, it is important that we, as a professional association, reflect on what we have learnt over the course of our 'lifetime'.

Organisations, like individuals, must continue to 'learn' throughout the course of their lives to remain relevant and vibrant and deliver the services and support required by their members and their profession. The College is no different in our collective lifelong learning journey. We continue to work to ensure educators from early childhood through to tertiary institutions working in all systems (government and non-government) and across all subjects and career levels (from pre-service to principals and deans of faculties of education) have a central, collective and collegial professional association that is focussed on elevating the standing of the teaching profession, recognises the incredible achievements of educators and actively facilitates avenues through which all educators can influence their profession. The College's learning journey continues alongside that of our members and our profession.

I wish you all the best for a happy festive season and look forward to an exciting 2019.

Warm regards

ACE Membership Referral Campaign

Calling on ALL ACE Members to help build a bigger, stronger, more diverse ACE community. The ACE Membership Referral campaign is underway and we are asking ALL ACE members to refer two (2) colleagues to join the College before the end of 2018. In return for helping us build the ACE Community both you and your colleagues will receive the following:

- As a referral CHAMPION you will receive 25% off your 2019/2020 ACE membership subscription when you successfully refer two new financial members to the College
- Your colleagues who join the College will receive 25% off the pro-rata membership fee for the remainder of 2018/2019
- The more members you refer the bigger your discount for next year's membership subscription - refer five (5) new financial members and your 2019/2020 membership subscription will be free!

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Re-Thinking Lifelong Learning

Dr Norman McCulla FACE

“Ancora imparo” ... (“I’m still learning”). At age eighty-seven these were the legendary words attributed to Michelangelo, the famous Italian Renaissance artist (Sistine Chapel...), sculptor (Pieta, David...) engineer, architect and poet.

Michelangelo died a year later at age eighty-eight, which was quite a feat considering it was 1564 and most people were very fortunate if they made it anywhere near that age.

Fast-forward to the first decades of the 21st Century and to young people graduating as teachers from their teacher education programs. Indicate to them that they are joining what is unquestionably “the learning profession”, where lifelong learning is the norm, and you will often get a range of reactions from interest and polite smiles of bemusement to reactions of sheer concern. “Learning” it seems to many has come to be synonymous with testing and assessment, and with the pressure of deadlines and all the stress associated with demonstrating outcomes. Poised on the brink of there being some “open air” from all that hard slog through secondary school and university, the thought of it continuing into their chosen profession is considered by some as anathema.

To the contrary, those of us who have been in teaching for some time celebrate being part of a profession that is dynamic; that is forever learning and forever changing in response to societal changes as well as knowledge and insights that are accumulating in the profession itself. To teach is indeed to learn, both with colleagues and alone. To learn in the profession is indeed a lifelong pursuit, but one subject to some contemporary pressures. Put simply, there have been times when it has been easier to learn than others.

LIFELONG LEARNING

‘Promoting lifelong learning’ is an aspiration that slips easily into vision and mission statements, and into strategic plans, as ‘a nice idea’ without necessarily pausing to consider what it actually means.

Lifelong learning encompasses our formal education and our working lives. It extends beyond these where research confirms its continued value to economic and personal welfare in the so-called ‘retirement years’. It increases our self-sufficiency, self-reliance and ability to cope with physical, health and social relationships (Thang, Lim & Tan 2018).

Much of the more-recent discourse on lifelong learning as it applies specifically to education has centred on the need for Australia to remain economically competitive on the global stage. In a globalised world characterised by inter-linked economies, it is understandable that “maintaining economic competitiveness” has become such an imperative. As a consequence, the ‘learning’ required to maintain competitiveness has become more centralised nationally in its definition, targeted to defined standards and desired outcomes, and controlled through regulation.

A glance at the websites of UNESCO and the OECD identifies three broad areas encompassed by the term ‘lifelong learning’:

- formal learning, centred on credentialed programs and courses

- non-formal learning, consisting of professional development, training courses and the like, and
- informal learning centred on personal interests.

A strength in the area of formal learning is the Australian Qualifications Framework (AQF). It provides an integrated pathway of formal learning to doctoral study, integrating learning from one stage to the next and ensuring that doors remain open for capable students to progress to the next level. It links conventional tertiary education, vocational education and corporate training, thus providing scope to recognise prior learning.

There are two subtle lines however, both worthy of exploration, that cut across formal, non-formal and informal learning. The first is the association of lifelong learning with economically-productive work and, more specifically, with learning viewed as necessary for the upgrading of skills to first gain employment and stay qualified and relevant within it. The second centres on the differences between learning that is 'required' by someone else and learning that is intrinsic and self-motivated. A question arises as to whether much of the learning that is 'required', particularly that which is classified as non-formal learning, has come to dictate the teaching profession, ostensibly for a good cause but questionable longer-term outcomes.

**LIFELONG LEARNING AND
THE TEACHING PROFESSION**

The knowledge base of the teaching profession, as with all manner of things, is growing exponentially. Much of it can now be accessed through a mobile telephone. Such access is giving a new meaning to 'informal learning'. With the volume of information available, we are also subject to information overload. Add social media by way of the ephemeral posts on Facebook, Instagram, Twitter and the like for good measure and the question continually arises: What do we do with all of this 'knowledge'? Are we wiser as individuals and as a society because of it? Is this what we now mean by lifelong learning? Where is there a place for in-depth analysis and considered reflection?

Learning, unlearning and relearning are constant cycles with which most in the teaching profession would be familiar, carried out through a wide of range of professional development (PD) strategies in teams or alone; at conferences; by reading; by working together online or face-to face...all of which we accept as 'non-formal learning'. Some take the further step into postgraduate study and higher degree research that constitute formal learning.

Working lives however are being defined more by what we currently know and can do rather than by status or title. In this inter-connected, globalised world the 'shelf life' of staff in many organisations is reduced; being equipped to do a job today is no guarantee of being equipped to do the job tomorrow. As the rate of change increases our capacity to cope with it seems to be diminishing. Stress levels rise. One argument goes along the lines of: because the average worker changes

jobs between seven and ten times, workplace relevance and career success depend on lifelong learning and professional development; on investing in oneself. Another argument suggests that those whose work can be replaced by a computer have now been replaced, or will soon be replaced. There is no reason, the argument goes, why teaching should be held exempt.

In considering lifelong learning, there is a balance to be struck between what learning is ephemeral, what is immediate, and what is enduring.

THE TENUOUS NATURE OF FORMAL LEARNING

Teaching is recognised as one of the world's oldest professions. Some would even say the oldest. There are eternal truths in the profession centred on the values and moral purposes by which teachers go about their work in helping students learn. There is a body of extensive knowledge (through educational psychology) about how children and young people grow and develop; about how education has evolved over millennia (through education history), especially since the era of mass education; of how we have debated the nature of knowledge and the purposes of schooling (through education philosophy); of how societies shape the educative process to advantage some but not others (through education sociology). Never a discipline in itself, education has gained its strengths by drawing on a range of disciplines.

Insofar as formal education is concerned, pre-service or postgraduate programs that dilute or ignore this scholarly base in favour of addressing only the edicts of current policy in curriculum, or assessment and reporting, or regulatory requirements that force compliance, all focus essentially on today. Important as these things may be at the time, they do come and go. The future belongs to the more scholarly teacher, well equipped from the knowledge of the past, able to meet the current policy and program demands required of him or her (but interpreting them in broader frames related to the moral purposes of education and what they wish to achieve for student learning), and opening up new areas of inquiry as the world and their professional work unfolds.

In the broader literature on lifelong learning one thing is clear: better educated people are more likely to be employed in the knowledge economies of the world, including schools and other education institutions. Observations such as this raise the interesting question of whether we will see a range of 'super teachers' emerge as knowledge leaders supported by a broader range of semi-professional and para-professional roles?

Our societies are also dividing along wealth lines, as are nations. Those at the high end of the knowledge economy are increasing their prosperity. Those at the lower end are threatened. The welfare state has diminished. The gaps between rich and poor are widening. Living in a neo-liberal, market-oriented, choice-driven, performance-oriented, individualistic world, as we have been doing for over thirty years, has continually reasserted the proposition that it is

the individual's responsibility to invest in his or her own learning to gain employment, to continue in employment, and to forge out a career path. To baulk at learning, or to be narrowly focused on what needs to be learnt in the immediate context only to satisfy the requirements of someone else, or to be isolated as individuals in our learning, are tenuous positions indeed.

True learning in contrast, especially as it relates to schools and other education workplaces, is a social activity. It is sometimes said that, if knowledge is to have social meaning, it must be negotiated socially. The notion of "lifelong learning" could be held therefore to be an attitude; a set of values; an endemic part of school or workplace culture...

Schools are responding of course, as they always have done, to societal change. Formal administrative structures in large schools centred on classic Weberian hierarchical bureaucracies with their apex of administrative leadership are giving way to flatter organisations with a wider range of senior and middle management positions. These might include directors of curriculum, professional learning and development, student and staff welfare, and predictably, administration and compliance. In a broad shift to more distributive forms of leadership, power is shared out and participation invited. Leadership can come from any level of staff within the organisation depending on what the focus is, especially in team-based professional learning communities that are formed to address specific workplace issues or challenges. The building of personal self-efficacy is nonetheless very much dependent upon being part of a school or workplace culture that develops collective self-efficacy among staff.

We know too that the focus and nature of the learning of teachers changes substantially throughout their career trajectory. The learning needs of beginning teachers vary, for instance, from those of more experienced teachers. Effective whole-school PD programs therefore incorporate two dimensions: a vertical dimension related to strategic goals and priorities; and a horizontal dimension related to the developmental interests and needs of specific career stages.

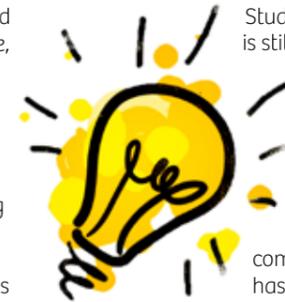
THE COLONISATION OF NON-FORMAL LEARNING

If indeed professional learning is centring more on what we can do and need to do in an immediate context, it brings into question the relationship between the gains that are sought through participation in short courses for professional development and the more in-depth, reflective and longer-term learning that comes through formal study such as in a Masters degree.

In the Australian context, it could be argued that the focus has shifted more to emphasising non-formal over formal learning. This is especially so where teachers are seeking the necessary 'points' to meet certification and re-certification requirements related to state and

national professional standards, or are aspiring to address higher order standards for career advancement. In order to bridge short courses and formal learning, we are also seeing parts of postgraduate courses being broken down to stand-alone professional development short-courses with the capacity for these 'micro-credentials' to be accumulated and recognised should the participant wish to enrol in a related university course.

These short courses offered by universities as non-formal learning within the scope of regulatory professional standards are part of a new 'market place' of professional development where employing authorities, professional associations, commercial publishers and private providers are among those promoting their wares. With the increasing dominance of short courses, and with so many PD offerings in the market place, the question arises as to what incentives exist for teachers to take the step into formal postgraduate learning and research beyond a personal sense of learning, exploration and achievement that step brings.



Study at the postgraduate level in general is still not a highly-valued part of Australian education, remaining more a personal choice and aspiration in many sectors than being recognised as a key part of career development. Advances have been made. Those studying at the postgraduate level can do so online thus helping to better balance work, family and study commitments. Anywhere and anytime learning has become the norm. Study can be linked to school and workplace improvement. Blended courses integrate both face-to-face and online learning. Micro-credentialed study described above is being seen by some as the bridge between certification requirements, credit transfer arrangements and longer-term academic study.

The argument put for the dominance of non-formal lifelong learning in the workplace is relatively straightforward: all staff have a responsibility to continually learn; employers have a responsibility to support that learning, especially as it relates to organisational and jurisdictional goals and targets. One outcome has been the necessity of PD providers of all persuasions to apply for accreditation as providers by demonstrating the national and state-based professional standards that are being addressed, and a substantial growth in PD courses targeting these standards. Regulation and compliance have become key words with the amount of 'busy work' required administratively by both providers and participants in demonstrating how they address and report on accountability requirements, the subject of frequently expressed concerns as being a detractor from the real work of teaching and learning.

It could be argued therefore that the notion of 'lifelong learning' is being reframed in subtle ways in the Australian education landscape. Regulatory authorities have come to dominate non-formal learning, colonising

it in favour of learning that is linked to professional development priorities of economic and strategic significance. The need to increase scores in literacy and numeracy in national and international league tables is a prime example and well documented in the media.

THE DEMISE OF INFORMAL LEARNING

Learning that is continually required at someone else's behest can undermine the innate nature to learn. Short-term goals can undermine more in-depth investigations and theory-building of the kind found in postgraduate study and higher degree research. Less time is left for hobbies and interests of the kind that once characterised the general field of adult education and some aspects of vocational education and training. Lost in rounds of funding because they were no longer considered to be 'economically viable', these kinds of activities often fostered local communities and face-to-face engagement. Informal learning it now seems takes place via Google or social media on the mobile telephone or computer but essentially alone in real terms.

There are other contributing factors afoot in organisational development that, on the surface, are seen to increase both dynamism and performance on the one hand yet serve to narrow the scope of learning on the other. Business process reviews of organisational structures to lower costs and increase efficiencies; new public management focused on targets and outcomes; performativity cultures that continually call for data and evidence; performance review and development schemes focused on the individual meeting 'aspirational' targets, all require new knowledge, different skill sets, a capacity for ongoing change and demonstrated performance. Employee burn-out becomes a real possibility.

To counter these trends, we are also seeing the emergence of an increased focus on staff wellbeing and, particularly in education, on student wellbeing, all positive signs of at least addressing the problem if not the cause. An increasing casualisation of the workforce has also created its own set of issues with regards to how the learning and development of casual staff might best take place so they are not at a disadvantage.

For Australia to succeed in a globalised world also requires learning about other cultures and developing intercultural understanding. This is especially so for school leaders in helping them to site current policy directives in broader frames of reference than that of the local jurisdiction and specific employing authority. To 'think globally and act locally' has been part of an education mantra for some time now. The ways in which increasing numbers of principals and senior staff can be supported in participating in international networks and overseas study tours needs consideration.

THE LIFELONG LEARNING OF NEW TEACHERS

To return to the question on which we began, how then do we best sow the seed of lifelong professional learning in our new teachers?

A challenge exists within the large numbers of

applicants being admitted into teacher education courses in universities seemingly oblivious to workforce projections and needs in Australian education. There can only be two reasons for this: one is that it is a way of raising university revenue; the other is that we are opting as a country for an increasing level of casualisation in the teaching profession so we will need a greater volume of graduates. In contrast, high performing nations tend to restrict the numbers entering the teaching profession in favour of a more personalised preparatory program thus elevating the profession's status in the community. It seems to be a win-win situation benefitting the student, the community and the schools where they will eventually be employed.

Modelling the kinds of learning behaviours characteristic of the profession in teacher education programs where there is a high volume of students, conventional tiered lecture theatres and a once or twice per-week tutorial structures is challenging. So too is the cost of education with the shift to the individual student for a substantial part of that cost with the expectation of gaining employment at a salary level commensurate with the qualification. The necessity for many students to work also cuts across student on-campus availability. The challenge in developing a lifelong learning mindset

There is a missing part in general discussion on lifelong learning and that it the pure, unadulterated pleasures associated with learning itself.

among student teachers is to begin to accept that the learning process in professional life as a teacher will vary in its focus as we progress in the profession; to realise that much of the key learning they will do will be school-based and collegial, working with others in the workplace, linking with others through networks and at conferences, online and face-to-face. Learning in strong workplace cultures will indeed take on many dimensions from short courses to longer programs, formal study and research, quiet reading, professional book clubs, professional learning communities, inquiry-led and evidence-based action research and change projects... It will also be shaped by specific career-stage needs and interests. It is a rich tapestry indeed.

Learning that is dominated or over-restricted by regulation and compliance that compels teachers as individuals to participate by extrinsic rewards, or sanctions diminishes the learning profession. In the rush to accumulate the points necessary for re-certification and career advancement professionally, there is always the danger that this will become an end in itself; that any short-term gains in once-off PD courses will not have any real impact on longer-term school practice.

There is now a wealth of research cautioning against the validity and effectiveness of a stand-alone, once-off, individual PD course held external to the school or workplace in their capacity to influence workplace practice. The challenge is to make the link.

These issues come to the fore especially in the learning undertaken by early career teachers. Demonstrating professional competence while daily seeking to run an orderly classroom, understand school rules, processes and procedures, stay onside with colleagues, parents and caregivers, supervisors and mentors...and meet regulatory and certification requirements...is sometimes a bridge-too-far accounting for resignation rates higher than those that might be anticipated among graduates entering the profession.

For many of us in the profession, the real learning kicked in once these early years had been navigated and mastered; where we were on top of the day-to-day classroom routines and we started to find areas of particular interest in our practice well worth following up. Links to professional associations, which are so important to Australian education, and to professional development and postgraduate study, were logical corollaries for many.

How to develop, maintain and grow this capacity for lifelong learning intrinsically among a new generation of teachers entering the teaching profession is indeed a major challenge as the conditions around us change. What they conceive learning to be; how they are learning; and how they will learn, are questions of great importance. They influence how they will teach.

If professional learning is seen as no more than acquiring the knowledge and skills to develop individual behaviours to meet current organisational targets, it is simply an authoritarian view of learning; a narrowly-conceived notion of 'lifelong learning' as being no more than training and development that is provided to meet the short-term requirements of the workplace and to maintain currency in a role. This is a necessary part of contemporary organisations but the real danger is that learning stops there, particularly when there is little time, energy or enthusiasm left for other learning once all the administrative requirements have been met. If it does stop there, we may become technically competent but we also run the risk of diminishing ourselves as human beings. Consider too what is then portrayed to the students.

There is a missing part in general discussion on lifelong learning and that it the pure, unadulterated pleasures associated with learning itself. Socrates alerted us to this in his advocacy for a kind of learning that is indeed lifelong in its eternal openness to new ideas; questioning and exploring without necessarily finding

the right action or reaching an end; a healthy scepticism that challenges rather than blindly accepts. So too did Michelangelo.

Lifelong learning can never be defined as a something that is imposed by government, regulatory bodies or employing authorities. True lifelong learning comes from within; it is an attitude and state of mind open to new ideas and a willingness to pursue them through all manner of learning - formal, non-formal and informal. Lifelong learning is a mindset; an inherently personal affair.

The challenge is to work with and support our new teachers by modelling characteristics of life-long learners such as being curious, information literate, open to learning, research-oriented, and intrinsically motivated whether as a teacher educator, mentor, supervisor or school leader.

We must take care that the notion of 'lifelong learning' is not hijacked and colonised by economic imperatives, important as that is. The importance of learning new skills and developing new understandings alone or with colleagues to enhance employability and career path progression have always been part of professional life and, with the speed of change, more so. But there is more... To learn is part of the human condition. A narrow focus on work-related skills can only serve to narrow the focus on true learning, especially if learning is portrayed negatively.

All of us privileged to be working with young people have therefore the moral imperative to model the joys of lifelong learning in the mix of whether it be formal, informal or non-formal learning in our professional and personal lives. Ideally, the administrative and regulatory structures under which teachers work will be seen by them as enabling rather than inhibiting this important task.

References

- Australian Qualifications Framework (AQF), Retrieved from <https://www.aqf.edu.au>
- Holmes, A 2002, Lifelong Learning, Capstone Publishing Oxford, UK.
- Thang, L.L., Lim, E., Tan, S 2018, 'Lifelong learning and productive aging among the baby-boomers in Singapore', *Social Science & Medicine*, vol. 219.

Biographies

Dr Norman McCulla FACE FACEL co-ordinates the Educational Leadership Program at Macquarie University, Sydney. He is a former teacher and educational administrator who has served as NSW Branch President of the College and a member of the National Board.

Lifelong learning: is there a choice?

Lynda MacLeod, EdD, MEd Studies, BEd, BA, Grad Dip Education (Secondary), Grad Dip Social Science (Child Development), Grad Cert Education (Studies of Asia), FACEL, MACE, JP.

Writing this from the state of South Australia, a state in the throes of transitioning from a reliance on the manufacturing industry, in particular the vehicle industry, to a state optimistically eyeing off a prime role in the newly recreated space industry, lifelong learning is no longer aspirational; it is imperative. There appears to be no choice.

If we accept this premise, our focus shifts from the why of lifelong learning to the what and the how.

Lifelong learning is not a 21st century phenomenon. On a personal level, after completing my initial Bachelor of Arts degree many decades ago, I chose to gain a teaching qualification as I knew that it could be by teaching that I could continue my love of learning, particularly my learning history and politics. As educators we are also learners. Now our learning must be visible and shared with our students if we are to validate the concept that in all professions and occupations lifelong learning is implicit. Lifelong learning is not something new, it is not the exclusive product of the 21st century. Jobs evolve and have done so since the Industrial Revolution; so too must our learning continue to evolve over the course of one's life. Although schooling is often labelled antiquated and archaic, teaching and learning now is considerably different to the practices of the late 70s when I first began my teaching career.

Provision for workplace training, development and the associated funding for many decades was seen as the responsibility of the employing organisation. In 2018 the emphasis has shifted. From the outset we acknowledge that much of the responsibility for ongoing training and development now seems to lie with the worker. However, our focus on lifelong learning should not just be in response to planning for workforce needs, rather lifelong learning should be encouraged for all aspects of life.

LEARNING BEYOND SCHOOLING.

Whilst Laal (2013) reports there is no uniform descriptive

definition of the concept of lifelong learning, there is general consensus that the term refers to the idea that learning continues well beyond the formal years of schooling. According to Laal (2013, p.937) "Lifelong learning should be a process of conscious, continuous learning that goes throughout life and is directed towards providing both the individual needs and that of the relevant community". 'Lifelong Learning' is interpreted as engaging people with learning throughout all stages of their lives (Bryce & Withers 2003). More generally, 'lifelong learning' can be seen to encompass the strategies required to create and exploit opportunities for learning throughout the lifespan.

If we were to play a word association game with the term 'lifelong learning', many would associate it with some aspect of technology: mechanisation, mass production, automation, artificial intelligence, virtual reality, all-time connectivity, the cloud, biometrics, driverless cars, the Internet of things, mobile supercomputing, technological brain enhancements, genetic editing, digital fusion, data-driven, robotics or the need to change jobs as previous occupations are changed. If we keep playing the word association game, lifelong learning will inevitably throw up words like entrepreneurship and innovation.

If we take the space industry for example there are already more than fifty space start-up companies in existence in Australia in 2018 (<https://www.abc.net.au/news/2018-06-14/australian-space-industry-nasa-spacex-adf-satellite/9860004>). This number is likely to keep growing and concepts such as a 3D printer in space are moving towards reality. There can be no doubt that



digital transformation is placing demands on learners and workers to make decisions through a digital lens. Yet despite the seemingly exponential acceleration of change, thanks to great strides in technology and globalisation, we are still looking for ways to ensure that the concept of lifelong learning is embedded, not only in our schools and learning institutions, but within society itself. Digital transformation cannot just be about technology; it has to be about making things better. Though the whole workforce needs to be digitally conversant, the workforce also has to be critically aware and ethically responsible. These are also taught skills.

It is non-contentious that we, as educators, must assist our students to best prepare for the future. The world over, educational leaders are being urged to prepare their students for a future that is far from predictable. While there has been much emphasis on the so-called 21st century skills, sometimes also referred to as soft skills, curriculum around the world is still dominated by traditional subject content. As with all assisted learning, the starting point is to consider the needs of learners. The question is however, how do we know what learners will need over the course of a lifespan? What we do know is that school leavers, indeed a reasonable proportion of the current workforce, are mobile, casualised and freelance. It is likely that Emotional Intelligence Quotient will be more important than Intelligence Quotient. If young people

today are, as some predict, likely to have 17 jobs over five to six different careers after they leave school, educational institutions cannot possibly cater for every individual's job and career prospects (FYA 2017, p.6). Therefore, an employee will be needing to continuously learn in order to adapt to the differing demands of up to 17 different employers over the course of their working life.

Yet predicting exactly what skills will be needed for the jobs of tomorrow can be difficult. Whatever the future is, we are reasonably certain that it will be a digital future. Environmentally, socially and economically the world is facing mammoth challenges and solutions to these challenges need to be found now. Learning for life means that individuals must adapt to constant change and find relevance in a digital world. We must be prepared to harness digital reality by accessing digital tools and platforms that facilitate further knowledge acquisition. We need to learn how to exploit the potential of digital technology and to mitigate the risks. We need to learn in order to understand the new relationship between humanity and machine. While this presents huge opportunities, it also presents huge challenges. We need to teach our learners how to learn and how to critique. Through being better equipped to harness the possibilities of what Professor Klaus Schwab (2017), Founder and Executive Chairman of the World Economic Forum, has called the 4th Industrial Revolution, we also need to

start preparing our students to create the 5th Industrial Revolution. While educators consider the formal notion of education, we must also teach our students to access the increasing opportunities presented through informal education.

Following its 1996 report *Lifelong Learning for All*, the Organisation for Economic Cooperation and Development (OECD) concluded in 2001 that there were grounds for both optimism and caution in assessing the importance and impact of lifelong learning strategies in OECD countries. To implement strategies of lifelong learning within the community, lifelong learning the OECD provided the following advice:

- All learning, formal and informal, should be recognised and good systems for informing and guiding learners, especially adults, need to be developed
- Lifelong learning requires good foundation skills among both the young and adults: with motivation the centre. Fundamental changes in curriculum and pedagogy, emphasising learning to learn, not just content mastery, are needed
- Equitable access to learning over the course of the life-cycle and responsive to diverse and multiple learning needs
- Countries must evaluate resources according to lifecycle needs and deploy them effectively.

In 2018, the fact that we are still exploring the concept of lifelong learning as a separate dimension in education shows that we are far from acting on the advice from 2001. So how do we embed lifelong learning as a key component of education in the same way that we have done with literacy and numeracy?

CREATING LIFELONG LEARNERS

In her 2015 article, *Creating Lifelong Learners: Fostering Facilitation, Modeling, & Choice in the Classroom*, Angela Falter Thomas found that respondents in her research study “believed that to create lifelong learners, teachers need to shift away from directing learning to facilitating—providing guidance and scaffolding student learning” (p19).

According to Thomas, the teachers most likely to foster lifelong learning convey the importance of creating a quality, safe digital environment that supports research and allows students more autonomy, thus providing incentive for students to conduct their own learning. These teachers show, explain and provide appropriate tools for students to explore and find their own answers to problems, which they themselves have most often identified. Through providing students with proper search engines and credible websites, students are taught how to conduct precise, credible and most importantly, safe searches. Thus, students need to be taught how to decide if information they find is “credible, reliable, relevant, and important” (p20).

Furthermore, the teachers in Thomas’s study provide students with inquiry activities that allow for groups of students to “communicate, collaborate and problem solve”. The approach was demonstrated as “a great way

to facilitate and engage students in interesting learning materials, which broadens their minds and makes them want to question more”. This creates motivation while adding variety and interest. Students’ preferences are catered for and learning is shared within the classroom and beyond. “Through facilitation, modelling, and opportunities for choice, teachers can ultimately empower students to become lifelong learners” (p.20). We need passion, we need creativity and we need courage if we are to fully equip learners for their lifelong learning journey.

However, the 2001 OECD Report acknowledged that motivating adult learners could be problematic (p.16). According to analysis in this report, adults (like children) are most motivated when they can link current learning to past experiences and when learning is placed in the context of their own lives, apply their learning to real problems and when adults have choice and control over what it is that they are learning. To encourage learning in adults, their specific learning requirements must be considered and catered for through specific teaching practices. Adults need options and flexibility in scheduling, possibly needing access to day-care facilities. Many adult learners, if they are going to pursue longer-term education, need to find the learning process engaging, enjoyable and relatable. The rapid advancement in information and communication technologies, especially fast broadband Internet and the ever-growing suite of Massive Online Open Courses, offer huge potential in catering for learning across the lifespan. Yet committing to completing the plethora of courses available for future learning requires resilience and determination given the competing demands on an individual’s time. As with child learners, adult learning will occur when the jurisdiction fosters a culture of learning. Fostering this culture is the responsibility of every aspect of society and must not only rest with the education sectors.

PREPARING STUDENTS FOR LIFELONG LEARNING

There seems to be no choice — students will need to be prepared to learn over the full course of their working lifetime, indeed their whole lifetime. So, if we are not disputing the need, then we need to decide on the how. We need to teach students to learn and personalise their learning. Students will only learn if they understand the purpose of their learning and its relevance to them. Creatively, this could be achieved by constructing personalised learning dashboards in a classroom setting where students are taught to navigate their own progress and become autonomous learners. We are gradually acknowledging that learning must include the so-called soft skills of communication through active listening and clear speaking, problem identification and problem-solving, decision-making and accepting responsibility for those decisions as well as a capacity to take risks.

Microsoft and McKinsey & Company’s Education Practice recently collaborated on a research paper, *The class of 2030 and life-ready learning: The technology imperative*, which demonstrates value in fostering greater student-centricity and a heightened focus on learners. The students surveyed for this study were clear: they want to develop the skills to navigate their own learning—to explore and make choices that unlock their curiosity and

potential. They also want teachers who actively engage them and support their innate curiosity.

Although focusing on secondary schools, Bryce and Withers (2003) identified that schools with strengths in information literacy and where there is fluidity between subjects and year levels are most likely to nurture the development of lifelong learners. These are schools who celebrate and value initiative, change and curiosity. They help students acquire certain generic skills and where learning is seen as a form of problem-solving. These schools encourage students to set their own learning goals, and reflect on what they are learning. They provide support and encourage learners to work collaboratively. They assist students to develop good communication skills. Furthermore, these are schools where the learning environment is considered ‘safe’ allowing both students and teachers to take risks. These schools promote every student as a positive learner, where students are taught how to learn and teachers are encouraged to work collaboratively, innovatively and to develop their own career paths by pursuing continuous learning.

Bryce and Withers (2003) further state that in order to encourage lifelong learning, a school should have a learning centre that is the heart of the school; both a resource centre and a tutorial centre. A school should have a strong focus on students’ metacognitive skills, with programs that link work with schooling, and above all else has someone in the school, often the principal, whose enthusiasm for lifelong learning is inspirational. Furthermore, a school should have a strong pastoral care program nurturing individual’s self-esteem.

Bryce and Withers’ (2003) study identified that the two obstacles to becoming a lifelong learning school are the attitudes of some parents and teachers who expect schools to have “imposed discipline, mainly competitive, summative assessment and teachers who are dispensers of knowledge” (p16). The other obstacle is the major influence on the curriculum of end of school examinations, which often encourage a short-term approach to learning with a focus on knowing rather than learning.

Bryce et al (2000) in their paper for the Australian Council for Educational Research recommends that schools implement a number of actions in order to ensure that a focus on lifelong learning is a priority. Schools should have:

- a mission statement celebrating commitment towards lifelong learning
- course documentation explicitly stating the commitment and strategies for developing lifelong learning characteristics in all students
- a curriculum that identifies core/essential knowledge and the rapidly changing nature of this core/essential knowledge structure

Biographies

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- a curriculum that encourages integration, whilst recognising the centrality of information literacy skills in all learning areas
- assessment policies recognising out-of-school student learning, as well as identifying the learning to learn competencies and information literacy competencies expected of students at key stages of schooling
- commitment to the continued development and support of its information services
- teachers who are actively supported and encouraged to be lifelong learners particularly through further study and ongoing professional learning
- a commitment to working in partnership with community groups to support and broaden student learning.

We know that learners and learning are at the heart of education. Students not only need to learn, they need to know how to learn and how to keep learning across their lifespan. Yet the question remains: how do we assist the learners, indeed create learners; and what learning should be the focus of our attention in all schools and societies worldwide? As we move towards the third decade of this century why are we still asking questions such as: what is it to be educated in the 21st century? What learning experiences are valuable to our students? What information is most relevant to students in a world of constant technological change? How do we assist our students to be actively engaged in the knowledge economies?

References

- Bryce, J, Frigo, T, McKenzie, P and Withers G 2000, ACER eSearch, *The Era of Lifelong Learning: Implications for Secondary Schools*, viewed at http://research.acer.edu.au/lifelong_learning/1.
- Bryce, J and Withers, G 2003, ACER Report, *Engaging secondary school students in lifelong learning*, viewed at https://research.acer.edu.au/cgi/viewcontent.cgi?article=1014&context=indigenous_education.
- The Foundation for Young Australians (FYA) 2017, *New Work Smarts Report*, viewed at https://www.fya.org.au/wp-content/uploads/2017/07/FYA_TheNewWorkSmarts_July2017.pdf accessed 24/09/18.
- Laal, M 2013, ‘Key necessities for lifelong learning’, *Procedia - Social and Behavioral Sciences*, vol. 83, pp. 937 - 941
- Microsoft and McKinsey 2018, *The class of 2030 and life-ready learning: The technology imperative*, viewed at <https://info.microsoft.com/ww-landing-McKinsey-Class-Of-2030-Whitepaper.html?cid=en-us>.
- The Organisation for Economic Co-Operation and Development (OECD) 2001, *Lifelong Learning for All*, viewed at <http://www.oecd.org>.
- Schwab, K 2017, *The Fourth Industrial Revolution* Penguin, UK.
- Thomas, A F 2015, ‘Creating Lifelong Learners: Fostering Facilitation, Modeling, & Choice in the Classroom’, *Journal of Curriculum and Teaching*, vol. 4, no. 2, pp. 17-21.

Educational interventions for dementia and brain protection

Professor James Vickers, BSc(Hons), PhD, DSc



Dementia is a major health and social issue of the 21st Century

The world's population is getting older. Better public health and improved management and prevention of a range of human health conditions have been the good news stories of our times. This increased longevity adds to a dramatic shift in our demographic future where a much greater proportion of our population will live into their eighties, nineties and beyond.

On the down-side, this increase in lifespan exposes more of our community to ageing-related conditions such as dementia, for which we currently lack effective therapeutic options. It is estimated that there are over 430,000 Australians with dementia in 2018, which, in the absence of a cure, will rise to around one million by 2050. Already, dementia is the second leading cause of death of Australians, and the leading cause of death of females, accounting for eleven per cent (11%) of all deaths in the latter.

Across the globe, it has been estimated that there are currently around 47 million people with dementia, and this figure will rise to over 130 million by the middle of the century. Alzheimer's Disease International has identified that the fastest rise in numbers of people with dementia will be in low to middle worth countries where populations are rapidly ageing, against a background of undeveloped health and social systems for the aged, particularly those with dementia.

Dementia is more of a syndrome than an individual disease, a way of describing a range of degenerative diseases that lead to impairment in how the brain operates, resulting in progressive changes in cognitive function as well as in behaviour and personality. While there are dozens of diseases that cause dementia, the best known, accounting for approximately sixty to seventy per cent (60-70%) of cases of dementia, is Alzheimer's disease. Other common diseases involving significant progressive cognitive impairment and behavioural changes are Lewy body dementia, frontotemporal dementia and vascular dementia. These diseases can also overlap in ageing individuals. Dementia often comes on insidiously, making it difficult to tell when the condition begins for a person in the early stages. The middle stages are characterized by gradual loss of a range of functions, which can involve alterations in personality, and, in the last stages, the person affected by dementia can have significant deficits in mobility, problems in eating and swallowing, and difficulty in communicating. The trajectory and expression of these degenerative changes can vary substantially between individuals, and while dementia can result in many significant disabilities, there are also many areas of ability that can persist for a long period of time.

RISK FACTORS FOR DEMENTIA

The major risk factor for dementia is age. Your risk of dementia rises steeply with advanced age, particularly after 80. Around about one third of people over 85 years of age have overt dementia, and a major proportion of the rest have some degree of dementia-related pathology in their brain. After ageing, there are common gene variants that also relate to risk, and a very small proportion of cases, typically with relatively younger onset, can be linked to specific genetic mutations that have been passed through families.

Substantial research, mostly based on epidemiological studies that have examined populations across the world, have indicated that approximately one third of cases could be effectively prevented by attending to lifetime exposure to a number of potentially modifiable factors (Norton et al 2014; Livingston et al. 2017). The major factors so far identified, accounting for most of this modifiable aspect of risk, are mid-life obesity and hypertension, low physical activity, smoking, diabetes, later life depression and low educational attainment. Other risk factors such as traumatic brain injury are important, but likely lead to only a small proportion of cases of dementia. There are a large number of other potential risk factors that are actively being explored, including extent of lifetime engagement in cognitively stimulating tasks, social engagement/isolation, diet, air pollution, hearing impairment, chronic stress exposure, sleep disruption and delirium.

The most significant potentially modifiable factor related to later life risk of dementia is the number of years of education earlier in life. In this regard, the greater educational attainment early in life, the lower risk of dementia in later years. If this factor alone could be addressed globally, there would be around eight per cent (8%) fewer cases of dementia into the future. There have been a number of ideas about how more education may be neuroprotective in our advancing years. An important insight into this link comes from studies led by Professor Carol Brayne of the University of Cambridge on the interaction between education levels (up to Year 12) and brain pathology in three large cohort studies in Europe (Brayne et al. 2010). The research team measured the density of pathological changes related to dementia in the brain and found that education had no effect on these pathological measures, but that the more years of education a person had, the less chance of that individual has of demonstrating dementia at the end of their life. It is as if increasing education was related to greater resistance to the effects of this pathology, increasing the threshold at which clinical symptoms appear as the disease develops. Education doesn't stop you getting the disease, but it delays its clinical manifestation.

Across the globe, more years of education is related to general intelligence as well as social-economic circumstances and factors affecting access to education. The broad interpretation of studies that have consistently demonstrated the link between education and dementia risk is that this may reflect resistance due to a combination of brain and cognitive 'reserve'. Neuroscientists are not able to tell you what characterises the neurobiological substrate of intelligence, but this is likely reflected in the richness and complexity of synaptic connections, and so a more intelligent brain can possibly afford to lose more of these connections due to a dementia-related illness before clinical symptoms emerge. Another view is that education may help build cognitive reserve – that more years of this form of cognitive stimulation leads to greater efficiency and functional plasticity of neural networks and systems, so that the brain can adapt to an accumulating burden of pathology more effectively, and for longer. While brain reserve is linked to genetics and initial neural development, the theoretical basis of cognitive reserve relates to the concept of malleable and 'plastic' neural pathways that can benefit from stimulation, and that this capacity is life-long.

It is important to note that many of the risk factors above are clearly inter-related, and so discerning the impact of individual factors can be tricky. For example, greater educational attainment is often linked to higher standards of living, including higher levels of health literacy and better access to health and social services. This may have a demonstrable influence on the suite of vascular factors that have been linked to dementia risk.

Given the lack of progress on effective drug interventions for dementia, there has been increasing interest in reducing risk of dementia by addressing potentially modifiable risk factors. A large number of research centres across the world focus on undertaking intervention studies based on these risk factors to boost resilience to dementia. A whole industry has developed around 'brain-training games' which are mostly delivered online. While some brain training companies are transparent about indicating the level of evidence of efficacy of their products, others are not. The jury is out on whether such brain training games do reduce risk of ageing-related cognitive decline and dementia. More longer-term studies by independent researchers are required to generate such evidence.

UNIVERSITY EDUCATION FOR OLDER LEARNERS

The Wicking Dementia Research and Education Centre, established in 2008, has a strong focus on the potential for education to be useful in building awareness of dementia and its risk factors, and in supporting people with dementia, family carers and the aged care workforce. The Wicking Centre has an undergraduate degree program specifically focused on dementia care, and also runs free short online courses (MOOCs or Massive Open Online Courses) on 'Understanding Dementia' and 'Preventing Dementia' which include contributions from people with dementia, their carers, health care professionals and leading international experts. To date, over 220,000 people

from 185 countries have enrolled in these MOOCs. We consider the MOOCs as interventions. The Understanding Dementia MOOC seeks to build awareness and reduce stigma around dementia, whereas the Preventing Dementia MOOC presents current evidence on dementia risk factors and the latest research on approaches to reduce risk. When the courses are run, they typically attract between 15,000 -25,000 students, and there is a substantial social learning component where participants share their views and experiences across a range of topics. Interestingly, the broad demographic profile of students in our undergraduate degree and in the MOOCs are females in their forties and fifties.

The Tasmanian Healthy Brain Project is a flagship research project of the Wicking Centre that focusses on the benefits of later-life learning. While the influence of early-life educational attainment for reducing risk of dementia later in life is strongly supported by epidemiological research, it is not known whether engagement in education later in life may supplement resistance to this condition. The Tasmanian Healthy Brain Project commenced in 2010 with over five-hundred Tasmanians between fifty and seventy-nine years of age, and has involved participants engaging

Collectively, we are at a very exciting stage of human history, with increasing longevity providing many decades of opportunity for lifelong learning

in either a small to a substantial amount of study at the University of Tasmania, across a variety of courses, mostly in the Arts and Humanities. We were interested in whether engagement in such further study may help build cognitive reserve and resilience to both ageing-related cognitive changes as well as dementia. The latter outcome is likely to be assessable after twelve to fifteen years, and we have been fortunate that the National Health and Medical Research Council has supported the project for the first ten years.

Participants in this study are assessed regularly with a battery of psychological tests that look at a variety of 'domains' of cognitive function, including executive function, working memory, episodic memory and language processing ability. In addition, we are undertaking genetic, imaging and blood studies with this cohort to see if common gene variations influence the potential benefits of the intervention, whether education influences the functional connectivity of the brain and if brain proteins linked to plasticity or neurodegeneration can be detected in peripheral fluid samples, respectively. Around 150 participants have contributed a skin sample as well. From this skin sample, we can convert these cells into pluripotent stem cells, and from there, into neural cells. This allows us to study the nerve cell biology of living subjects from whom we have amassed substantial genetic and cognitive data.

In terms of the main goals of the study, we are still many years away from determining if engagement in education later in life is protective for dementia and/or provides stability of cognitive function into older ages. However, we have determined already that further education increases indices of cognitive reserve capacity (Lenehan et al. 2016), in particular, language processing capacity (such as vocabulary and comprehension) (Thow et al. 2018). Language processing function is an example of crystallised intelligence, functional brain improvement through experience, and has been linked to lower risk of dementia in epidemiological studies. It was certainly pleasing to see that university study provided a material benefit to cognitive function!

The Tasmanian Healthy Brain Project also provides an opportunity to understand what the experience of university study is like for a group of older adults. There is a general assumption in the community, and often within our tertiary organisations if you look at marketing campaigns, that university is mainly for young adults. However, in Australia and many other countries across the world, a growing proportion of university students are adults over sixty years of age, particularly people in retirement or those reskilling for second careers later in life. While there is substantial literature on the factors that relate to educational attainment and achievement for younger learners, there is scarce research into the older adult experience. In our cohort of older adult learners, we investigated a range of factors that might influence academic success, the latter measured by grade point average (Imlach et al. 2017). Interestingly, we determined that age itself (up to eighty years of age) and gender had no influence on academic achievement. This is a very interesting result as it demonstrates that older adults are fully capable of doing well in university study. In addition, genetic variations linked to ageing related cognitive performance and decline also had no effect on performance.

Furthermore, while factors such as intelligence (IQ), mental well-being and social connectivity appear to have a role in predicting academic outcomes in young learners, these factors were not linked to academic performance in this group of older learners. Language processing and episodic memory ability did correlate with GPA outcomes in the Tasmanian study, as did measures related to lifetime engagement in 'non-formal' cognitively stimulating activities. This shows that specific cognitive functions, as well as maintaining an active cognitive lifestyle, would support success at tertiary study in older adults.

An important caveat for this finding was that the participants for the Tasmanian Healthy Brain Project were 'self-selective' and so could represent a more motivated and/or intelligent pool. However, approximately half of the cohort had not undertaken university-level education before, which indicates that it is never too late

to take up such study and be successful, or to undertake activities that may provide benefits to cognitive function and resilience from ageing-related neurodegenerative conditions. While this study has focused on university study, it would be likely that other activities that promote complex mental stimulation that pushes our brains to work as hard as this organ can, would provide benefit to building cognitive reserve.

Collectively, we are at a very exciting stage of human history, with increasing longevity providing many decades of opportunity for lifelong learning as well as an expectation of a lengthy 'post-work' period of life. The major health and social challenges that arise though are ageing-related conditions such as dementia which can have a devastating effect not only on the person with this condition, but also their close family and friends. Education strategies such as MOOCs provide a great opportunity for society to understand what these conditions are and their various impacts, but engagement in higher education and learning may also be a vital part of our armamentarium to boost resistance to cognitive decline.

References

- EClipSE Collaborative Members, Brayne C, Ince PG, Keage HA, McKeith IG, Matthews FE, Poluikoski T, Sulkaava R 2010, 'Education, the brain and dementia: neuroprotection or compensation?', *Brain* 133, pp. 2210-2216.
- Imlach AR, Ward DD, Stuart KE, Summers, MJ, Valenzuela MJ, King AE, Saunders NL, Summers J, Srikanth VK, Robinson A, Vickers JC 2017, 'Age is no barrier: predictors of academic success in older learners', *Nature: Science of Learning*, vol. 2, p. 13.
- Lenehan ME, Summers MJ, Saunders NL, Summers JJ, Ward DD, Ritchie K, Vickers JC 2016, 'Sending your grandparents to university increases cognitive reserve: The Tasmanian Healthy Brain Project'. *Neuropsychology*, vol. 30, pp. 525-531.
- Norton S, Matthews FE, Barnes DE, Yaffe K, Brayne C 2014, 'Potential for primary prevention of Alzheimer's disease: an analysis of population-based data'. *Lancet Neurology*, vol. 13, pp. 788-94.
- Summers MJ, Saunders NL, Valenzuela MJ, Summers JJ, Ritchie K, Robinson A, Vickers JC 2013, 'The Tasmanian Healthy Brain Project (THBP): a prospective longitudinal examination of the effect of university-level education in older adults in preventing age-related cognitive decline and reducing the risk of dementia', *International Psychogeriatrics*, vol. 25, pp. 1145-1155.
- Thow ME, Summers MJ, Saunders NL, Summers JJ, Ritchie K, Vickers JC 2017, 'Further education improves cognitive reserve and triggers improvement in selective cognitive functions in older adults: The Tasmanian Healthy Brain Project', *Alzheimers & Dementia: Diagnosis, Assessment & Disease Monitoring*, vol. 10, pp. 22-30.

Biographies

Professor James Vickers (BSc(Hons), PhD, DSc) is the Director of the Wicking Dementia Research and Education Centre at the University of Tasmania. He has previously held National Health and Medical Research Council Fellowships, is Past-President of the Australasian Neuroscience Society, and a board member of the Dementia Australia Research Foundation and Glenview Community Services.

Lifelong Learning in the Digital Age

Assistant Professor Justin Reich

The must-have toy of the 2013 Christmas season was Rainbow Loom. Rainbow Loom is a simple plastic board with vertical pegs that comes with hundreds of small, colorful rubber bands. Children weave rubber bands across the pegs to make bracelets and other charms. Rainbow Loom got thousands of young boys to play with pink rubber bands, and for that alone it deserves hearty commendation.

The media narrative surrounding Rainbow Loom was that it was a back-to-basics craft toy. The Toronto Sun reported (Lu & Rushowy 2013):

“Parents love the toy because it’s simple. It doesn’t require a battery. It doesn’t mean more screen time and it isn’t an app. “It’s an activity. You can sit down and create,” [Rainbow Loom creator Choon Ng] said. “Parents also like it when they show creativity. And you’re not done playing with it because you can wear it.”

In an era where iPads and Android phones were ascendant, Santa brought millions of children a toy that would finally get them to put down their darn mobile phones.

Except, it didn’t. Rainbow Loom wasn’t an antidote to screens, but rather screens were integral to how children played with the loom. The bracelets that students could make with Rainbow Loom were incredibly intricate. One model was called the Starburst Bracelet, a dazzling, three-dimensions display of color and technique. Two girls from America’s heartland, Ashley and Steph, published a 16-minute video about how to make a Starburst Bracelet on YouTube in 2013.

In the video, the camera has a stationary position above a beige shag carpet, and the Rainbow Loom rests on the carpet. Ashley carefully demonstrates to viewers the process of weaving each band, moving slowly for new moves or techniques, and speeding up the video through repetitive motions. The video has been viewed nearly 33 million times.

Bracelet making is an activity centered in the physical world, but digital media and networks of learning were essential to children’s interactions with Rainbow Loom. I won’t argue that 30 million people watched Ashley and Steph’s Starburst Bracelet video; it’s more likely that 300,000 people watched it about a hundred times each; that bracelet is really hard. But children’s play with Rainbow Loom was profoundly shaped by a global network of other children playing with Rainbow Loom. Students shared videos on YouTube, asked questions and offered hints in the comments, started discussion forums, posted pictures on Facebook, and sold bracelets through online stores and Web sites. No local community had enough expertise to have fun for very long with Rainbow Loom—once you get past the first few designs suggested in the kit, you need to engage with a wider community to get inspired and learn new patterns and techniques.

Rainbow Loom was developed by an American father in New Jersey who was too fat-fingered to make bracelets alongside his kids, so he designed a kit that leveraged a pick. He sent CAD drawings across the Pacific to China, where factories injection molded millions of kits, packed them on pallets and stacked them in shipping containers that were sent by freighters to local distributors all around the world. This modern marvel of supply chain logistics and innovation happened alongside a second wonder of human ingenuity. Contemporaneously with the shipment of pegboards and rubber bands around the world, a completely decentralised, parallel network of teaching, learning, and knowledge exchange grew up online. Some of these networks offered more traditional and hierarchal structure — the Rainbow Loom company has a YouTube channel of official instructional videos — and some offered more informal and distributed structures. But opportunities to learn about Rainbow Loom blossomed with extraordinary speed and scale during the short duration of the fad. The nearly-instantaneous development of this global network of teachers and learners is as extraordinary a feat of collective human engineering as the supply chain network that allows a dad in New Jersey to have an idea that becomes a global consumer product.

For those with access to these global online networks, it is the greatest time in world history to be a learner.

Never before have learners had such incredible access to resources and communities of tutors and apprentices. Whether you want to learn to play guitar, brew beer, identify birds, translate Cicero, throw a javelin, intubate a trauma victim, farm gold in World of Warcraft, integrate a function, detonate a bomb, program in Javascript, or become a better teacher, there are classes, tutorials, forums, and networks full of people who are excited to teach and excited to learn. If you’ve ever signed up for an online class, read a recipe online, or watched a video about how to unclog your toilet, you are part of that network.

PREDICTING LEARNING WEBS

One person who might not be surprised to read the story of Ashley, Steph and the Starburst Bracelet is Iuan Illich. Illich (1973) was a philosopher and social critic, and in 1971 he published a small tract called *Deschooling Society*. Illich argued that schools were oppressive institutions, imposing onto the young an obedience to the state, while crushing creativity and smothering independence. Now I happen to like schools — I’ve spent my life in and around these magical and tragic institutions — so I don’t truck with all of Illich’s critiques. But the fourth chapter of *Deschooling Society*, “Learning Webs”, is truly prophetic.

In “Learning Webs”, Illich addresses the question of how learning should proceed after we have deschooled society. How could we learn all the complexities of industrial society without schools? Illich envisions a bazaar of learning mediated by networked computers. He imagines people who want to learn something would encode their desires on punch cards, and people who had something to teach and share will do the same. These punch cards will be entered through terminals into mainframe computers that will match teachers and learners together to have new experiences. Illich wrote:

A student who has picked up Greek before her vacation would like to discuss Greek Cretan politics when she returns. A Mexican in New York wants to find other readers of the paper *Siempre* — or of “Los Agachados,” the most popular comic book. Somebody else wants to meet peers who, like himself, would like to increase their interest in the work of James Baldwin or of Bolivar.

The operation of a peer-matching network would be simple. The user would identify himself by name and address and describe the activity for which he sought a peer. A computer would send him back the names and addresses of all those who had inserted the same description. It is amazing that such a simple utility has never been used on a broad scale for publicly valued activity.

In its most rudimentary form, communication between client and computer could be established by return mail. In big cities typewriter terminals could provide instantaneous responses. The only way to retrieve a name and address from the computer would be to list an activity for which a

peer was sought. People using the system would become known only to their potential peers.

Though the technologies of today are not quite what Illich imagined, Learning Webs offers an uncanny description of the essential features of networked learning in the Internet era. Search engines and keywords provide the connections between Rainbow Loom video-makers and video-watchers, rather than punch cards and mainframes. In the fundamentals however, Illich predicted that people like Ashley and Steph would be able to connect with people like the 30+ million Starburst watchers in a networked world.

Illich's predictions about learning webs were wrong in two important ways. First, Illich failed to predict the mediating role that institutions would play in learning networks. As tutors, Ashley and Steph, for the most part, do not directly encounter their learners. Ashley and Steph's instructions are mediated through an institution, Google, which owns YouTube. In this particular case, the institutional role is minimal, but other forms of networked learning, such as Massive Open Online Courses traditional educational institutions such as universities are crucial nodes in learning networks — providing platforms, instruction, assessment, and credentialing. We haven't deschooled society. Rather, the role of traditional educational institutions is shifting and expanding, and many more institutions in society are becoming involved in education.

Illich's second mistake was that he did not account for scale. Illich's fundamental metaphor, the *bagaar*, constrained his imagination to an expanding series of small — ideally dyadic — tutorial interactions. Ashley and Steph don't tutor other individual children online; their learning experiences are accessible to millions. The communities that form in the discussion comments below each video allow all kinds of complicated interactions between individual learners, their peer learners, other tutors, and Ashley and Steph. To be sure, there are blossoming networks of individual tutorials available online: for practicing new languages with native speakers, prepping for college entrance exams, playing an instrument, and maybe even for making Rainbow Loom bracelets. But these networks of individual tutorial sit alongside many other



learning environments that operate at greater scales.

I suspect that history will prove that in the main, Illich asked the wrong question. The challenge is not to figure out how to leverage networked learning environments after our systems of schooling collapse, but for schools to figure out how to incorporate these lifelong learner networks into routines honed and cemented in an analog age. In some professions, navigating these online learning networks is a basic pre-requisite for functional competence — it is nearly impossible to be a computer programmer without being able to navigate help networks like StackOverflow. In many others, online learning networks offer powerful opportunities for lifelong learning, as the many teachers who have connected on Twitter, Pinterest, Facebook and other social networks can attest. And as the story of Ashley and Steph illustrates, our lives as creators, citizens, and neighbors are enriched by learning with others about arts, crafts, hobbies, and public issues.

Schools will come up with a variety of responses to this new question: how best to prepare students for a life of networked learning? I predict a very small number of schools will find a niche in declaring that the best preparation for any future is the classics, and learning networks can wait until students have mastered the time-worn fundamentals. Another small number of schools will choose another extreme, to re-center the school experience around networked learning, and to align as closely as possible the networked learning practices that kids use outside of school with those provided inside of school. The bulk of schools will hug some kind of middle. Learning networks will be most easily embraced in the periphery of the curriculum, as students brush up on programming new sensors in robotics club,

research substance and strategy on debate teams, and watch exemplar school productions on YouTube in preparation for the spring musical. In the places furthest from testing and standards, networked learning will thrive.

Networked learning practices, will be embraced more tepidly in the core of the curriculum, but some enterprising teachers will make connections between networked learning and the disciplines. To be a physicist now is not to just to run experiments in the lab, but to publish new results on ArXiv and discuss interpretations on Twitter. To be a poet is to record performances for YouTube, and trade screenshots of verses on Instagram. Knowledge and expertise, increasingly, resides within networks.

I predict that there will be great and lousy schools at both ends of the spectrum as well as in the middle; the right response to new forms of technology-mediated learning is reflection. The schools that best prepare students for a future of lifelong networked learning will be those who have thought carefully about people's learning practices outside of school, and what we can do as educators within schools to prepare students for these challenges.

References

- Lu, V & Rushowy 2013, 'Rainbow Loom bracelet maker hot toy trend', Toronto Star. Toronto, ON.
- Illich, I 1973, *Deschooling society* (p. 46). Harmondsworth, Middlesex.

Biographies

Justin Reich is an educational researcher interested in the future of learning in a networked world. He is an Assistant Professor in the Comparative Media Studies/Writing department at the Massachusetts Institute of Technology, an instructor in the Scheller Teacher Education Program, a faculty associate of the Berkman Klein Center for Internet and Society, and the director of the MIT Teaching Systems Lab. The Teaching Systems Lab investigates the complex, technology-rich classrooms of the future and the systems that we need to help educators thrive in those settings. He is the co-founder of EdTechTeacher, a professional learning consultancy devoted to helping teachers leverage technology to create student-centered, inquiry-based learning environments. He was previously the Richard L. Menschel HarvardX Research Fellow, where he led the initiative to study large-scale open online learning through the HarvardX Initiative, and a lecturer at the Harvard Graduate School of Education. He earned his doctorate from Harvard University, where he created the Distributed Collaborative Learning Communities project, a Hewlett Foundation funded initiative to examine how social media are used in K-12 classrooms. He writes the EdTechResearcher blog for Education Week, and his writings have appeared in *Science*, *The New Yorker*, *The Atlantic*, *Educational Researcher*, the *Washington Post*, *Inside Higher Ed*, the *Christian Science Monitor*, and other publications. Justin started his career teaching wilderness medicine, and later taught high school world history and history electives, and coached wrestling and outdoor activities. of the Dementia Australia Research Foundation and Glenview Community Services.



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Lifelong Learning for Adults with Intellectual Disabilities

The pace and volume of change in just about every major discipline means that lifelong learning is no longer an option, but absolutely essential. Andrew Bollington, Global Head of Research and Learning LEGO Foundation 2015.

I wish for a world that views disability, mental or physical, not as a hindrance but as unique attributes that can be seen as powerful assets if given the right opportunities. Oliver Sacks, neurologist, naturalist, and author.

This article explores the notion and pragmatics of lifelong learning by adults with intellectual disability. Firstly, the notions of lifelong learning, intellectual disability, the relevance of neuroscience and cognition, disability values, the National Disability Insurance Scheme are considered within this context. Secondly, practical aspects in setting up the spectrum and form of lifelong learning opportunities and learning goals by adults with intellectual disability are discussed.

ABOUT LIFELONG LEARNING - WHAT IT IS?

For the purposes of this paper lifelong learning will be limited to adult learning and that learning which continues beyond the 'front end' model of compulsory schooling and is developed in a variety of settings and following a multiplicity of pathways. The Organisation for Economic Co-operation and Development (OECD 2004) says simply that lifelong learning is '...continuation of conscious learning throughout the lifespan as opposed to the idea that education stops at 16, 18 or 21'.

As the OECD report describes, a lifelong learning model has four distinguishing and arguably enhancing features from the traditional model of schooling:

Firstly, is a systemic view of education and training, that views the demand for and supply of, learning opportunities as part of a connected system covering the whole lifecycle.

Secondly, there is an emphasis of the centrality of the learner, which requires a shift of attention from the supply side focus to the demand side of the learning arrangement meeting learner needs.

Thirdly, is the recognition that motivation to learn is an essential foundation to the achievement of lifelong learning, so developing capacity to learn is a goal.

Fourthly, lifelong learning recognises there are multiple objectives of educational policy such as personal development, knowledge development, economic, social and cultural objectives; and that the priorities among those objectives may change over the course of an individual's lifetime (OECD 2004).

In this context it is easy to see that lifelong learning is part of the fabric of valued everyday life in Australia.

There is an acknowledged value of lifelong learning where it is seen as creating: a more personally rewarding life; self-fulfilment; more opportunities for relationships; an ability to adapt to change; potential for increased employment options and income; and opportunities to develop natural abilities (B-HERT 2001). Continued access to education and training of a country's citizens is seen as an investment in the future, a pre-condition for economic advance, democracy, social cohesion, and autonomy. Optimising such potentially immense values of lifelong learning in a society requires a dedicated process of high-level government policy development involving properly identified stakeholders such as federal and state governments, businesses, universities, and other providers of education to set up the scenes and programs for lifelong learners (BHERT 2001)

ABOUT INTELLECTUAL DISABILITY - DEFINITIONS

A most commonly accepted definition of intellectual disability as a condition implying less efficient cognitive functions or structures compared to the norm is too simplistic to serve our purposes. The American Association on Intellectual and Developmental Disabilities (AAIDD, and formerly the American Association on Mental Retardation) developed a definition and classification of intellectual disability which provides a practical framework for addressing a wide range of problems facing people with intellectual disability rather than simply highlighting a cognitive deficit:

"[Intellectual disability] refers to substantial limitations in present functioning. It is characterised by significantly sub average intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adaptive skills: communication, self-care, home-living, social skills, community use, self-direction, health and safety, functional academics, leisure work. [Intellectual disability] manifests before the age of 18 years" (Luckasson et al 1992).

Importantly this definition distinguishes two aspects of intellectual disability: a cognitive component which is relatively stable over the lifetime and is measurable by an intelligence quotient (IQ) test, and an adaptive functioning component which is modifiable through experience and interventions and is measurable by appropriate rating scales. The breakdown of functional limitations into categories allows a more focussed approach to support, especially in the ways of lifelong learning.

The AAIDD's approach to the broader concept of intellectual disability embodies this helpful definition and takes into account the etiology or cause of the intellectual disability by identifying strengths and weaknesses and the need for supports via consideration of the individual's functioning, behaviour, health, environmental and social networks. Based on this assessment, the approach categorises the kinds and intensities of supports for activities required in the context of cognitive and adaptive skills, psychological, health and environmental considerations. This is most useful in the design of lifelong learning opportunities and the crucial acknowledgement that one size does not fit all.

These features emphasise that although a core cognitive disability may be permanent, the person with intellectual disability is able to develop and acquire skills if effective supports and services are in place. In turn, provision of these services involves consideration and modification of that person's health, environmental, social and cognitive state. Observation that individuals are not improving significantly should alert service providers of the need to review current supports and whether changes are necessary.

In order for providers of service, including lifelong educators, to provide optimal quality of their service to adults with intellectual disability they must understand the ways that the intellectual disability impacts on that individual in how they learn and communicate expressively and receptively, their skills, abilities and disabilities. They must also seek to comprehend what it is like living with intellectual disability in terms of living circumstances, organisation and scope of disability supports, basic health and wellbeing status, and associated sensory and motor disabilities. Application of the AAIDD expanded definition is useful in undertaking this assessment. Importantly, providers of service must come to understand if the individual with intellectual disability requires help to make certain choices in lifelong learning options, if they require help to be motivated, and what disability supports are required to facilitate the learning.

NEUROSCIENCE AND THE BRAIN

In the bigger picture of adult learning, it is useful for educators to have some insight into the neuroscience of cognition in the ageing brain and intellectual disability. It is important to understand that particular cognitive acts and thoughts are paired with particular processes in particular brain locations.

Ageing and the underlying etiology of the intellectual disability do not impact on all aspects of cognition. People with intellectual disability have a greater difficulty than average in learning, though they are not a homogenous group but rather, individuals with diverse strengths, interests and needs.

Types of organic brain processes which contribute to intellectual disability may be broadly classified as anatomical, developmental or neurohormonal. The isomorphism or perceived relationship between organic brain abnormality and cognitive disability may not be evident or predictable in all cases. This could be because of lack of scientific knowledge, reduced opportunities for the

development of adaptive skills or because other epigenetic factors mask or minimise the expected cognitive skills. In other cases, the organic brain pathology is associated with a specific neurocognitive deficiency or phenotype cognitive and adaptive pattern, which in turn, potentially impacts on learning style.

Understanding the impact of age on cognition is also important in lifelong learning for adults with or without intellectual disability. Cognitive processes involved in lifelong learning for adults differ from learning in children, in part because of differences in the brain at developmental and structural levels. There does not seem to be a global decline of cognition in normal ageing but rather declines in the performance of tasks that require quickly processing or transforming information to make a decision, such as speed of processing, working memory and cognitive executive functioning. Cumulative knowledge and experiential skills are usually maintained. Co-morbid physical illness, neurodegenerative diseases (such as Alzheimer's disease) affecting particular anatomical brain sites or neurohormonal processes may lead to specific cognitive deficits associated with the roles of that anatomy or those neurohormones (Murman 2015). Populations of adults with intellectual disability are relatively new in society and not a great deal of study has been done in much older adults with intellectual disability.

'NOTHING FOR ME WITHOUT ME': ABOUT DISABILITY VALUES, HUMAN RIGHTS AND THE NDIS

Importantly people with disability have identified the central importance of lifelong learning to their lives themselves. In their report Shut Out (2009) and the subsequent National Disability Strategy (2009) that ultimately led to the National Disability Insurance Scheme (NDIS, the Scheme), a key 'need outcome' was identified in learning and skills and further, that:

People with disability achieve their full potential through their participation in an inclusive high quality education system that is responsive to their needs. People with disability have opportunities to continue learning throughout their lives.

Lifelong learning services for people with intellectual disability must adhere to ethical principles, respect disability values, and meet legislative requirements; recognise the right of person with disability to education, without discrimination, on the basis of equal opportunity; recognise the right for an inclusive education system at all levels and the need for lifelong learning; and recognise the necessity for accommodation to the needs of the individual (United Nations 2006 article 24). Two further complementary disability principles relevant for lifelong learning planning include the principle of least restrictive alternative (interpreted, for example, as meaningful inclusion into mainstream or integrated specialised teaching) and normalisation (interpreted, for example, as usual setting of learning goals, acquiring skills of perseverance, coping with failure and success in learning new things).

THE NATIONAL DISABILITY INSURANCE SCHEME

One goal of the NDIS is to provide necessary and

reasonable supports for lifelong learning opportunities for participants of the scheme. The principles of NDIS outline a view of the pragmatics and funding demarcation of the disability-education interface in relation to schools, higher education and vocational education and training, and employment in an agreement within the Council of Australian Governments (COAG 2015).

Essentially, the NDIS-education-disability interface involves:

- the participant planning the NDIS funds necessary and reasonable disability supports for taking up certain informal, formal and non-formal learning opportunities and
- simultaneously the learning provider has a requirement to make and fund reasonable adjustments to minimise barriers and optimise inclusion for people with intellectual disability.

To optimise the NDIS supports for lifelong learning, and using a person-centred approach, participants and families must have in their minds their goals and aspirations clear with regard to lifelong learning and discuss these at planning sessions. As with other mainstream society services, there is a developing sophistication of this interface and settling of demarcation funding boundaries distinguishing those funding responsibilities of the participants' NDIS plans and those of the mainstream learning service provider.

BENEFITS OF LIFELONG LEARNING FOR ADULTS WITH INTELLECTUAL DISABILITY

Many parents of adults with intellectual disability recognise that, perhaps more than for individuals without intellectual disability, the individual with intellectual disability, because of their specific cognitive impairments, has much to gain from lifelong learning. These benefits include: greater independence and self-sufficiency; improved self-esteem and personal fulfilment; improved ability to problem solve; ability to make own decisions; opportunity to advocate for oneself and understand laws, rights and responsibilities; improved personal health and wellbeing; reduction of exploitation and abuse; increased understanding of the world in which they live and work; and an ability to contribute more to society. With adequate availability to lifelong learning opportunities, there may well be less intervention and reliance on government services and resources, increased opportunities for more income, future open or supported employment, and a decrease in physical and mental health concerns. Families and carers are able to celebrate their adult children's successes and enjoy more of a grown-up relationship with their adult child that supplants the parent/carer role. Additionally they experience reduced stress and concerns about the future welfare of their adult child, and less isolation by being able to stay connected with work and within the community (Senate Standing Committees on Education and Employment 2014 submission 35).

For older adults with intellectual disability, their views of what they want out of lifelong learning include wanting: to be empowered and actively involved; to have a sense of security; to maintain skills and learning; to experience

congenial living arrangements; to enjoy optimal health and fitness; to be safe and feeling safe; and to have satisfying relationships and support. Older adults with intellectual disability have expressed a desire to 'keep on keeping on' in areas of life that gave them pleasure rather than discontinuing because of age. They want more control over issues affecting their lives, and to be given meaningful roles, mental stimulation, companionship, reliable support and safety (Buys et al 2008; Boulton-Lewis et al 2008).

SPECIFIC GOALS OF LIFELONG LEARNING FOR ADULTS WITH INTELLECTUAL DISABILITY

Previously there has been a dearth of post-school options for young adults with intellectual disability, and in the case of those who were institutionalised, it was not considered relevant. The extension of the lifelong learning philosophy to adults with intellectual disability is late but positive.

Today, the established programs and goals of lifelong learning for adults with intellectual disability include vocational education and training in supported and mainstream environments, starting businesses, diploma and certificate training, promotion in work, parenting skills for parents with intellectual disability, numeracy and literacy, budgeting, using technology, learning through virtual environments, combating drop-out, learning on transition from school to work, safety aspects of daily living, domestic skills, art and music, reproductive health and sexuality, healthy living habits, life and survival skills, higher education, theatre and culture, cooking, shopping, driving, recreational and outdoor activities.

By pairing a comprehensive definition of intellectual disability with a framework of policy priorities for lifelong learning service provision for those with an intellectual disability means that almost any learning goal can be made and sought.

REQUIREMENTS FOR SERVICE PROVIDERS FOR ADULTS WITH INTELLECTUAL DISABILITY

Managing the pragmatic interface between learning and disability requires not only adherence of services to disability principles mentioned earlier, but also meeting legislative standards. The Australian Government has formulated Disability Standards for Education (the Education Standards) (2005), making these parts of legislation and accreditation for providers of education.

These standards set out a process to be followed to ensure that students with disability are provided with the same opportunities as other students to realise their potential through participating in education and training. The Standards apply to government and non-government providers in all education sectors (pre-school, school, vocational education and training, higher education and adult and community education) as well as to organisations whose purpose it is to develop and accredit curricula and courses. They cover areas of enrolment, participation, curriculum development, accreditation and delivery, student support services and the elimination of harassment and victimisation. Some of the services will be more specialised for adults with intellectual disability, and

others will be general community services, which still must be accessible for people with disabilities.

Educational bodies are required to make reasonable adjustments to ensure that students with disabilities are able to participate in courses or programs on the same basis as adult students without disability. Importantly, in considering such adjustments as being reasonable involves consideration of the nature of the disability, the view of the student, and the effect of the adjustment on the student. These include the effect on the student's: ability to achieve the learning outcomes; ability to participate in courses or programs; and independence. They also include the effect of the proposed adjustment on anyone else affected including the education provider, staff and other students, and the costs and benefits of making the adjustments. In making any adjustments the provider is entitled to maintain the academic requirements of the course or program, and other requirements or conditions that are inherent in or essential to its nature.

IMPLICATIONS FOR TEACHERS

Those who educate teachers to deliver lifelong learning for adults with and without intellectual disability aim to enable both teachers and learners to feel comfortable with diversity as part of the everyday. However, with increasing inclusion, it may become more common for mainstream teachers, 'untrained in disability', to have adult students with intellectual disability on a regular basis. Learning about teaching adults with intellectual disability must be in general teacher training, and not confined to specialised education teachers. This does not preclude more specialised training for teachers of students with intellectual disability as practitioners, researchers, innovators and leaders. In the learning environment, all teachers must be assertive to request adequate resources and disability supports so that their adult student with intellectual disability can learn.

IN SUMMARY

Lifelong learning opportunities take many forms all of which are relevant for people with intellectual disability. Mainstream services which provide such learning opportunities to any adults must and can be structured appropriately in any setting for the particular learning goal, have the reasonable adjustments integrated to eliminate access barriers for those adult students with intellectual disability, be based on sound disability principles, and satisfy legislated education standards. The desirability of making mainstream lifelong learning opportunities available for adults with intellectual disability has implications for teachers too. Some opportunities for lifelong learning for adults with intellectual disability will be placed in a specialised supported setting, if more specific to their needs. Although promising, more work needs to be done in the refinement

of the NDIS-education-disability interface to optimise the opportunities for adults with intellectual disability to engage in lifelong learning.

References

- B-HERT (Business/Higher Education Round Table) Position Paper No 4, 2001, The critical importance of lifelong learning, a Policy Statement February 2001.
- Boulton-Lewis G, Buys L, Tedman-Jones J, 2008, Learning among Older Adults with Lifelong Intellectual Disabilities, *Educational Gerontology*, 34:4, 282-291, DOI: 10.1080/03601270701883890
- Buys, L, Boulton-Know G, Tedman-Jones, Edwards H, Knox Ma, Bigby C 2008, 'Issues of active ageing: perceptions of older people with lifelong intellectual disability', *Journal on Ageing*, vol. 27, no. 2, pp. 67-71.
- COAG (Council of Australian Governments), 2015, NDIS Principles to Determine Responsibilities of NDIS and Other Service Providers, <https://www.coag.gov.au/sites/default/files/communique/NDIS-Principles-to-Determine-Responsibilities-NDIS-and-Other-Service.pdf>
- Disability Standards for Education 2005 plus guidance notes, Commonwealth of Australia, 2006
- Escuder-Mollon P, Esteller-Curto R, Ochoa L, Bardus M 2014, Impact on Senior Learners' Quality of Life through Lifelong Learning, *Procedia Social and Behavioural Sciences* 131, pp. 510-516.
- Laal M, Laal A 2012, 'Lifelong learning elements', *Procedia Social and Behavioural Sciences* vol. 47, pp. 1562-1566
- Laal M 2012, 'Benefits of lifelong learning' *Procedia social and behavioural sciences* vol. 46, pp. 4268-4272
- Luckasson R, Coulter D, Polloway E, Reiss S, Schalock R, Snell M, Spitalnik D Stark J 1992, *Mental Retardation: definition, classification, and systems of supports*. Washington DC: American Association on Mental Retardation. (AAMR)*
- Murman D 2015, 'The Impact of Age on Cognition', *Seminars in Hearing* Aug 36 (3) pp. 111-121
- 2010-2020 National Disability Strategy, Commonwealth of Australia, 2011.
- OECD (Organisation for Economic Co-operation and Development), 1996, *Lifelong learning for all*, Paris OECD.
- OECD (Organisation for Economic Co-operation and Development), 2004, *Lifelong learning policy brief*, OECD.
- Senate Standing Committees on Education and Employment 2014: submission 35, Current levels of access and attainment for students with disability in the school system and the impact on students and families associated with inadequate levels of support, *Advocates for educating adults with an intellectual disability*.
- Shut Out: the experience of people with disabilities and their families in Australia Commonwealth of Australia 2009
- Tissot P 2004, Terminology of vocational training policy: a multilingual glossary for an enlarged Europe (pp 70, 76, 112) Cedefop (Ed) Luxemburg, Office for Official Publications of the European Communities

Biographies

Professor Robyn Wallace Clinical Associate Professor is a specialist physician in internal medicine working in Hobart, Tasmania. As well as clinical work, she also teaches medical students and participates in some research. Much of her professional work is focused on improvement of the health and well-being care of adults with intellectual disability. The scope of Robyn's work includes clinical care, improving generic health services by making practical reasonable adjustments, advocating for disability values in the context of all health settings, working on refining the NDIS-mainstream service interface, and creating helpful relationships with the disability sector.

ACE – 2018 IN REVIEW

It has been another incredibly busy and exciting year for the Australian College of Educators. As the only professional association that works for the entire education profession, our dedicated staff and volunteers have ensured the development and delivery of the highest quality professional support, services and events to our members.

Throughout 2018, the College has held over 100 events at regional, state and national levels presenting the latest research and knowledge and providing professional learning opportunities for all educators.

Our increased public presence saw the College representing and promoting our profession on a broad range of topics in the media including celebrating the incredible work of ACE Awards recipients around the country.

We have also been working hard behind the scenes on issues of significant importance to educators. As a member of a group of education organisations, the College has recognised the urgent need to re-visit the goals that were established 10 years ago under The Melbourne Declaration and work with all tiers of Government to reinvigorate and re-focus our efforts in light of the significant changes in social, economic, cultural and environmental factors over the ensuing 10 years.

As has been noted in collective correspondence delivered to all key State and National Education Ministers and Senior Bureaucrats,

"It is clear that the 'why', the 'what', the 'how' and the 'where' of learning are the central challenges for our communities, our economy, our environment and our society – local, national and global. In the Australian context, equally applicable across the globe, the challenges faced by young Australians associated with indigeneity, inclusivity, and diversity are brought into sharp relief as we experience disruptive technology in the fourth industrial age, the rise of artificial intelligence, robotics and a new world of work. In this environment it is clear that a focus on equity and support for those young people at most risk is crucial.

The Teaching Profession, first and foremost, is acutely aware of the special responsibility we have for creating learning environments that are fit for purpose, supported by enabling conditions provided by government. We need the support of key stakeholders, public awareness and political commitment - learning is everybody's business.

The challenge is to put this national endeavour front and centre. To collaborate on shared national educational goals, is both compelling and urgent".

This work, along with a range of other services and support we have been developing for our ACE members will form the basis of yet another year of increased activity and action in 2019.

WHAT'S IN STORE FOR 2019

2019 will see the College reach a monumental milestone – 60 years of serving and representing the Australian Education Community – the longest serving professional association for educators in this country!

There is much celebration planned to mark our 60th Anniversary including events and publications.

We will also be advancing our contributions and activities in the areas of advocacy and representation. Working with the other members of the education collective on progressing a formal review and refresh of our national education goals. The College will also be focusing on critical issues such as standardised testing, curriculum development and teacher agency, to name a few.

The College, like education, continues to evolve. And like education, the College needs teachers to help drive that evolution. Providing avenues and opportunities through which educators, ALL educators from all sectors, systems, subjects and levels can actively contribute to, take ownership of and champion OUR profession is central to the activities, services and support delivered by the Australian College of Educators.

On behalf of the College, we would like to take this opportunity to thank the incredible dedication and commitment of our members. We look forward to celebrating our 60th Anniversary with you next year and to another 60 years of celebrating, representing and progressing the education profession throughout Australia.

With warmest regards
The Board and Staff of the Australian College of Educators

Teaching humans in this world of smartphones and talking homes

We live in interesting times, it has been said before, and remains ever true today...

Sophie Fenton MA (School Leadership) Monash, BA (Hons) LTU, MA (Int Politics) Monash, Dip Ed Secondary ACU, Distinguished Alumni (Education) 2016, Monash.

Not a day goes by without some kind of reference to the increasingly pervasive impact of the 'internet of things'.

There is a lot of talk about the conundrum of living in a digital age - government, industry, enterprise and education are all grappling with shared questions, as they strategically re-orientate for a world where automation is replacing manual tasks and artificial intelligence will emerge as mainstream in society...and sooner than we think!

The focus of today's grappling rests largely on the question of how to understand and work in this digital world.

But I wonder if that is the most crucial foundational question?

The irony is, that as our environment becomes increasingly shaped by technology today and singularity looms on the horizon of tomorrow, our humanness will come to be more essential to our lived experience than ever.

So perhaps an alternative starting question might be, 'what is it to be human in this world of smartphones and talking homes?'

The social, educational, economic and political ecosystem that we live in today was fashioned for the industrial era. The vast majority of people operating through and in this ecosystem barely understand the nature of, let alone potential of the technologies that increasingly redefine and newly define our terrain, (Harari 2018).

This problematic reality is exacerbated by our historical predisposition to being naive consumers of technology. About a century ago, we enthusiastically adopted

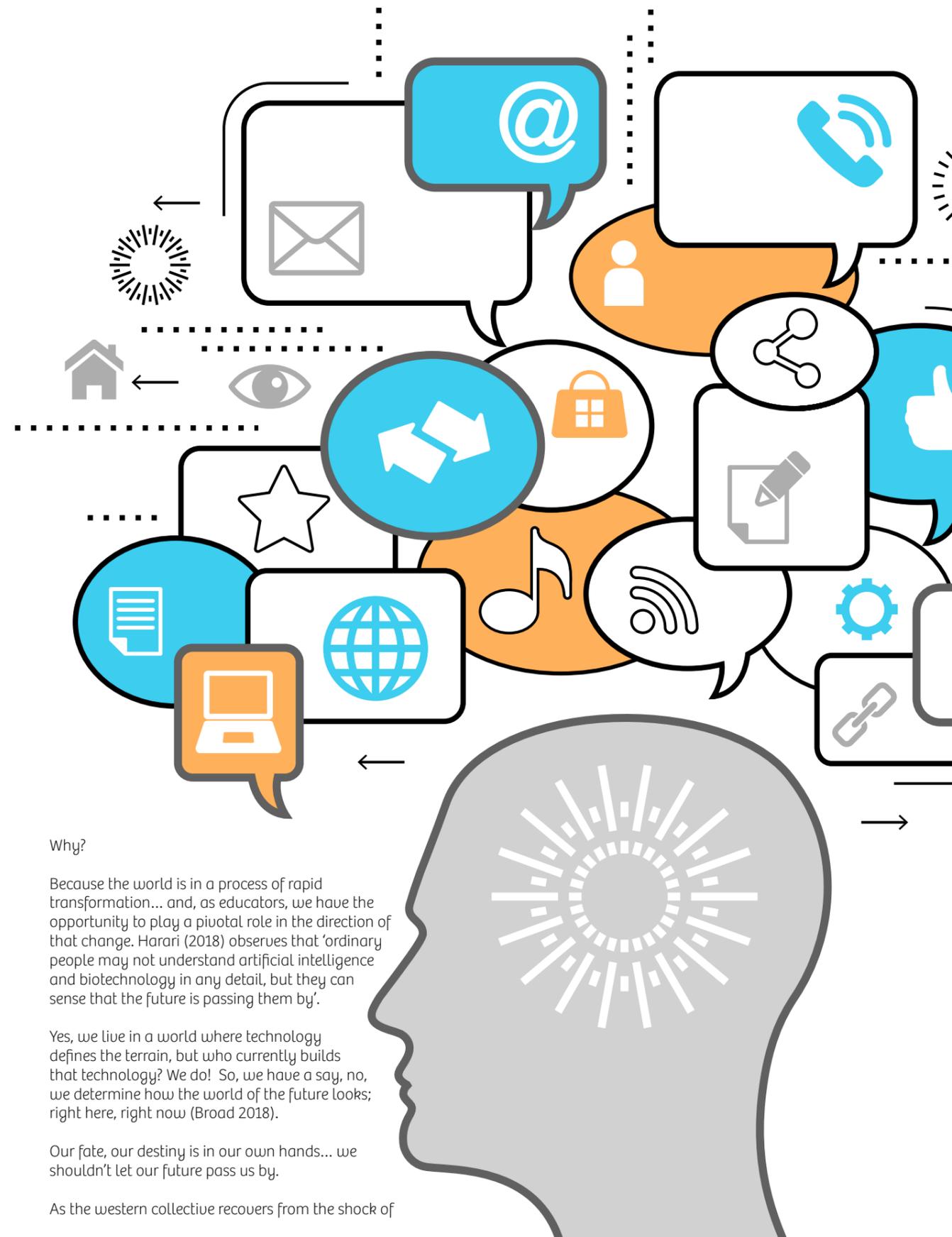
electricity and motorised vehicles without questioning their impact. We went to the movies and were transported into another world with the belief that it was real (PBS 1998). And we have eagerly embraced every gadget ever since. (Thompson 2012; Desjardins 2018).

A dominant feature of 2018 has been the investigations into and debates about the American democratic process during the 2016 election. These investigations and debates have opened our minds to the reality of how we can be manipulated by information delivered through technology. But this is not the first time that we have been led astray. Algorithms are ancient instruments and propaganda, today rebadged as 'fake news', is nothing new. Established governments, revolutionaries, terrorists have all used these tools to manipulate us in the past (Mansky 2018). Google and social media platforms, like Facebook, are simply the latest agencies to use, and get caught using!, tools to manipulate us today (Cadwalladr 2018; Mims 2018).

Yes, we live in interesting times... 'artificial intelligence could erase many practical advantages of democracy, and erode the ideals of liberty and equality. It will further concentrate power among a small elite if we don't take steps to stop it' (Harari 2018). Google's recent release of the AI bot booking a haircut left many people feeling both curious and disturbed! (Welch 2018). Japan, last year, celebrated the launch of a hotel that is entirely staffed by robots (Miller 2018) - as people enthused about the innovation, I felt the loss of a warm smile and the comforting touch of human contact that comes with a handshake as a person welcomes you to a hotel... I share the concern of many (The Atlantic 2018) at the erosion of our democratic system....

Unsettling times, challenging times...

But, for me, these are exciting times, too!



Why?

Because the world is in a process of rapid transformation... and, as educators, we have the opportunity to play a pivotal role in the direction of that change. Harari (2018) observes that 'ordinary people may not understand artificial intelligence and biotechnology in any detail, but they can sense that the future is passing them by'.

Yes, we live in a world where technology defines the terrain, but who currently builds that technology? We do! So, we have a say, no, we determine how the world of the future looks; right here, right now (Broad 2018).

Our fate, our destiny is in our own hands... we shouldn't let our future pass us by.

As the western collective recovers from the shock of

discovery that we have recently been played by the system, an incredible opportunity is presented, for we can use this realisation to rest back control of ethics to build better systems - for starters, we can strive to build social platforms that are inclusive, ethical, transparent and equitable...

Who are the builders of these tools for tomorrow? The students of today!

And this is where we, as teachers, have a pivotal role to play in the shaping of society.

It is through an awareness of the reality that we live in an environment designed and built by us, that we are best positioned to not only meet the challenges posed by the world of drones and talking homes, but to create them for our benefit. If we understand that we live in this construct, then we can become the masters of it, rather than its slaves. There is no debating the fact that our students need skills, they need to know how to think, they need to know how to innovate and to deliver on their ideas.

But as our world is redefined by the Fourth Industrial Revolution (Schwab 2018), students also need to know what it is to be human. For it is through a cognisance of our humanity that we can best live in and design for the world of virtual reality (VR) and robots.

And this brings me back to the question that needs to be asked in education today. 'What is it to be human in this world of smartphones and talking homes?'

There is something inherently precious in our humanity. When you feel down, a friend can give you a hug full of care and compassion - a hug surrounds and holds you up, with such effect that you physically feel the sadness melt away and comfort take hold. Alexia or Google Home can't do that for us humans... I was in a taxi recently and shared a story with the driver that ultimately made us both laugh so hard that tears rolled down my cheeks - as he passed me a tissue, I thought to myself, who will share my laughs on a rush-hour trip between meetings when driverless cars become standard? (Cranenburgh 2018).

And education plays a crucial role in developing that realisation and that capacity to act amongst our people. As informed consumers, we are less likely to fall prey to the potential pitfalls of manipulation.

As informed developers, creators, inventors; we are more likely to create tools that effect positive social impact and build infrastructure that enhances Human experience rather than diminishing it, as has been an experience of some of today's tools - the facebooks, the instagrams, the twitters...

These are really big issues, challenges, questions...

Do you know where some of the answers lie?

They lie in us...the teachers of tomorrow's systems builders today.

During my years in education, I have developed a view that the fundamental aim of schooling is to educate young people to become aware and then pro-active members of the community, who in turn are deliberate and positive contributors in the world. Schooling needs to prioritise relationships, being human and acting communally. It needs to focus on positive citizenship and developing an ethical entrepreneurial mindset.

But the school is only one element in the education system - each teacher is a microcosm of change agency, a resource for equipping our students to be the designers of tomorrow's world, today...

Teachers are uniquely positioned to best address today's challenges...

When designing your next unit of work, reflect on your practice...

How are you shaping society through your teaching?

How are you equipping your students with an awareness of what it is to be human and how to make a positive contribution to the world they live in?

Is it building student capacity to be learners, thinkers, innovators, doers?

Is it creating lessons characterised by creativity, flexibility and collaboration?

Is it enabling your students to develop empathy and social connectedness?

Where students are equipped with these capabilities, they will be a generation of innovators who are not only surviving in the realm of robots but are actually contributing to improving the state of the world. This is a watershed moment, and we are at the cusp of it!

Teach your students what it is to be human. Equip them with the awareness, the self-belief, the value of what it is to be human in this world of AI and VR.

These technologies have the potential to enhance our lives or to diminish them...and it's a choice - be clear about this, it is a choice - educate the next generation of designers and creators to develop tools to enhance, not to diminish.

In his renowned 2005 Commencement Speech, Foster-Wallace tells a story:

There are these two young fish swimming along and they happen to meet an older fish swimming the other way, who nods at them and says "Morning, boys. How's the water?" And the two young fish swim on for a bit, and then eventually

one of them looks over at the other and goes "What is water?"

Foster-Wallace goes on to argue that the real benefit of education lies in the development of cognisance - an understanding of what is so fundamental, so ubiquitous that it typically goes unnoticed unless we draw attention to it. The message here? As educators, we should remind our students always, the way they perceive and react to the world matters, so 'choose to see'.

Or as Foster-Wallace (2005) would say ... 'This is water. This is water'.

A fundamental value of education is to equip people with the skills and knowledge to build a better society. Education is a human endeavour. Education, at its best, is communal.

For education to penetrate and have lasting impact, it must be authentic. Schooling is not a practice for the real thing...it is an internship for entrepreneurial thinkers and social impact change agents in the here and now.

With digital twins on the other side of tomorrow, a consciousness of being human will be essential if we are to avoid the fate of those languishing obliviously on the mothership, the starliner Axiom in WALL-E (Stanton et. al. 2008).

This is a most incredible time to be an educator - for we are at the precipice of a genuine epoch transition - the tipping point for how society goes forward...and as educators you can be instrumental in shaping the very nature of our society by equipping our kids to be cognisant, intentional and ethical creators of their world, our world, the world that we all live in.

Biographies

Sophie Fenton After graduating with a MA (International Politics) from Monash in 1998, Sophie lectured in the Humanities at ACU and then transitioned into secondary teaching; teaching VCE, serving as Chair of Humanities Faculty and Head of Teaching and Learning. In 2014, she completed the MEd School Leadership at Monash, and then went onto co-found Sandridge School in Williamstown in 2016. A multi-award winner, Sophie has recently taken up a Doctoral position in the Faculty of Education at Monash.

References

- Broad, E 2018, *Made by Humans: The AI Condition*, Melbourne University Press, Melbourne.
- Cadwalladr C 2018, 'A withering verdict: MPs report on Zuckerberg, Russia and Cambridge Analytica', *The Guardian*, 29 July 2018, <https://www.theguardian.com/technology/2018/jul/28/dcms-report-fake-news-disinformation-brexit-facebook-russia>
- Cranenburgh, N 2018, 'Driverless cars are hitting Australia's streets in two world-first trials', *Create: Engineering ideas into reality*, 23 January 2018, <https://www.createdigital.org.au/driverless-cars-hitting-australias-streets-two-world-first-trials/>
- Desjardins, J 2018, 'The Rising Speed of Technological Adoption', *Visual Capitalist*, <http://www.visualcapitalist.com/rising-speed-technological-adoption/>
- Foster-Wallace, D 2005, 'This is Water', *Purdue University Commencement Speech*, delivered on May 21, 2005, <http://web.ics.purdue.edu/~drkelly/DFWKenyonAddress2005.pdf>
- Harari, Y 2018, 'Why Technology Favours Tyranny', *The Atlantic*, Oct 2018 issue, <https://www.theatlantic.com/magazine/archive/2018/10/yuval-noah-harari-technology-tyranny/568330/>
- Harari, Y 2018, *21 Lessons for the 21st Century*, Jonathan Cape, London.
- Mansky, J 2018, 'The Age-Old Problem of "Fake News"', *smithsonian.com*, May 7, 2018. <https://www.smithsonianmag.com/history/age-old-problem-fake-news-180968945/>
- Miller, J 2018, 'Tokyo's robot hotel, Japan: What it's like to stay in Henn-na Hotel in Ginga', *Traveller Magazine*, Mar 21 2018, <http://www.traveller.com.au/tokyos-robot-hotel-japan-whats-it-like-to-stay-in-hennna-hotel-in-ginga-h0xq2m>
- Mims, C 2018, 'Who Has More of Your Personal Data Than Facebook? Try Google', *Wall Street Journal*, April 22, 2018, <https://www.wsj.com/articles/who-has-more-of-your-personal-data-than-facebook-try-google-1524398401>
- PBS Series 1998, 'Great Escape: The world forgets its troubles and falls in love with the movies'. *People's Century Series*, Original broadcast: Tuesday, April 21, 1998, PBS. <http://www.pbs.org/wgbh/peoplescentury/episodes/greatescape/description.html>
- Schwab, K 2018, 'The Fourth Industrial Revolution: what it means, how to respond', *World Economic Forum*, 14 Jan 2016, <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>
- Stanton, A, Docter, P 2008, *WALL-E*, Disney-Pixar, first released 21 June 2008, Los Angeles.
- The Atlantic. eds. 2018, *Is Democracy Dying?*, <https://www.theatlantic.com/projects/is-democracy-dying/>
- Thompson, D 2012, 'The 100-Year March of Technology in 1 Graph, APR 7', *The Atlantic*, <https://www.theatlantic.com/technology/archive/2012/04/the-100-year-march-of-technology-in-1-graph/255573/>
- Welch, C 2018, 'Google just gave a stunning demo of Assistant making an actual phone call', *The Verge*, <https://www.theverge.com/2018/5/8/17332070/google-assistant-makes-phone-call-demo-duplex-io-2018>

A nonagenarian, slow cooking and more than a hint of disruption

Some musings about lifelong learning in uncertain times

Dr Bruce Addison, Deputy Principal (Academic), Brisbane Girls Grammar School

Recently I lost my 94 year-old father. It was a sad time, but it was also a celebration of a life well lived. When sitting down to write his eulogy, many themes swirled around in my mind – two themes recurred constantly. The first centred on the amazing sacrifices my parents made to give their children the gift of a broad-based education. The second was what a remarkable learner my father had been throughout his life. In so many respects he was the very epitome of a lifelong learner – a quest for learning founded unashamedly on wonder and inquisitiveness.

The Great Depression meant that Dad had no option other than to leave School. The economic collapse had hit Western Queensland townships particularly hard. Eventually he made his way to Brisbane, finding a job as a junior office boy at a large Trustee company. He stayed with that firm for over forty years eventually retiring as State Manager. This trajectory was the trajectory of many young people during this era. Dad possessed a prodigious intellect and an incredibly inquiring mind, reading widely and always maintaining an active interest in politics and current affairs. He was also a gifted proof reader and a great challenger of ideas – sloppy thinking was not allowed! His approach to learning left an indelible imprint on me. I was the first person in my family to attend university.

I note all of this not out of any sense of self-indulgence but to record the intrinsic drivers that underscored his approach to lifelong learning – a drive that was independent of formal education. My father could leave school at 15, forge a career and commit to the development of a vast array of skillsets. It was an era that in many respects was more patient, allowing time for experience and wisdom to flourish gradually. The long post war economic boom was also very significant as it meant that employment was generally secure. Aspirational standard of living was modest, certainly when compared with that of today. Industry protection ensured the apparent viability of our factories, the Reserve

Bank Act (1959) spoke in terms of “full employment” and “the economic prosperity of the people of Australia” and competition, as a mantra, was more akin to the passions underlying interstate sporting rivalry rather than an underlying organising principle of society. Hope was an essential element of the era in which my father forged his career and raised his family. His generation had the shocking spectre of a World War to contend with – it left its horrible scars. Even given this, there was a belief in the socio-economic and socio-political foundations of our society, no matter how flawed they may have been. People could be autodidacts, bettering themselves through work, reading and community engagement. Lifelong learning was essential to this journey.

Much of this certainty continued, by and large, up until the late 1970s. When I was at School, students still left at Year 10. Some pursued apprenticeships, others joined the public service and others left for careers in banking. Unemployment had started to increase as stagflation's economic incongruence began to challenge the accepted economic policy orthodoxy. Unemployment gradually emerged as a serious problem but there were still opportunities depending on where you lived. Those with work generally had the security associated with continuity of work. Neo-liberalism was to emerge as the new operating principle of Western Society. Nations such as Australia invested heavily in its precepts. It promised much. Globally, dark storm clouds were to eventually gather, generated in part by its excesses. A blind pursuit of profit was unsustainable as it did not recognise the fragility of greed as a fundamental motivator. Markets were proven to be far from self-regulating! The Global Financial Crisis (GFC) was a testament to this greed. The GFC was to run amuck with devastating human consequences.

Today, as we know, the world is vastly different. There was once a sense, some time ago, that our economic system, and the Taylorist principles underscoring it, at least gave people the reality and security of a

‘meaningless’ job for a ‘meaningful’ life. There are many people who benefited from the Whitlam government's policy of free tertiary education whose parents would have left school at 15 to work in less than glamorous jobs. Presently, even the ‘meaningful’ jobs may become scarcer as labour replacing change extends well into the sphere of both skilled and highly skilled employment. Our era, well into the foreseeable future, will be one of disequilibrium and uncertainty. The concept of employment will be different, less certain and more unpredictable. All of this is occurring alongside the inevitability of artificial intelligence's labour replacing efficiency. Aspirational standard of living will need a reboot not only because of the uncertainty surrounding employment but also because of the unrelenting march of climate change, no matter its cause. In addition to this, digitalism and its accompanying social media frenzy has apparently made us more “connected”, fuelling our addiction to the banal whilst at the same time making us less mindful. The opportunity cost of all of this has been presence – a state of mind so essential for our wellbeing.

All of these issues are of life changing significance. In addition, we cannot continue to plunder our resources no matter at what cost. We already know that liberal democracy will become less secure as the idea of fake news, vacuous social media falsehoods and opportunism emerge to take advantage of this uncertainty and in the process, challenge civility and freedom. The pendulum will in all likelihood swing back from the notion of neo-liberalism's homo economicus to the idea and ideal of citizenship. Margaret Thatcher's comment that ‘there is no such thing as society’ has and will continue to be shown to be an ill-advised musing. Concepts such as society, civility, citizenship and social compact will require rejuvenation and reconceptualising. This is one of the very great challenges we face as educators. Schools, organisations that are still so often constrained by an industrial model and mindset, should genuinely refocus in order to prepare students for an unpredictable future. The idea that a university degree will prepare graduates for life also needs challenging. Secondary education should be seen as much more than a preparing ground for tertiary education.

In such an environment, the concepts of deep and slow learning have an important role to play. Digital connectivity and its associated instantaneity has to be contextualised and challenged in order to ensure that learning is deep, reflective and thorough. The speedy access to information is not enough. Just as in slow cooking, slow learning allows time for the flavours to meld and for richness to develop. This requires counter-cultural thought. Laptops and digitalism provide speed and degrees of connectedness but they don't teach wisdom, thoughtfulness or allow time for musing. There is no doubt that digitalism can and should be an adjunct to this but it is not an end in itself. Learning

things for retention is so very important for brain function and cognitive growth. Teachers as the role models and facilitators of this are so very important. We must model our thirst for learning – demonstrating to our students that we are indeed lifelong learners, irrespective of our age or credentials. Wonder and noticing have to be our constant companions if we are to gift hope, discernment and optimism to our young people – qualities that are such important sojourners in the development of lifelong learning, inquisitiveness and a sense of wonder as life companions. The world has changed and will continue to change. It is very difficult for us, who forged our careers at the intersection of both the old and the new model, to fathom or to appreciate this fully. This disequilibrium is surely extremely challenging for those who will have insecurity as their constant companion. Fortunately they don't have the spectre of a World War hanging over them. They do have the prospect of climate change, unsustainable consumerism and labour displacing disruption, perhaps on a scale never before encountered, to contend with. It is our responsibility as educators to gift them with the ability to discern, to question and to problem solve with wisdom, foresight and integrity.

Those involved in the educational sphere, whether in policy formulation, undergraduate program development, schools as well as parents must work together to foreground, role model and celebrate the importance of lifelong learning. Such lifelong learning is surely founded on the oft-cited and perhaps poorly named 21st century skills. Merely pushing our students into the university space, a space itself struggling with the relevance of the traditional undergraduate degree, needs rethinking. The skills that will be so important, for not only now but for the future, are those based on entrepreneurship, collaboration, critical thinking and communication. Change will continue to be swift, relentless and disruptive making adaptive flexibility even more essential when traversing an era of uncertain employment opportunities.

Perhaps we are seeing some sense of returning to a bygone era. I know school students who are opting for full time work and part-time study. They want to learn on the job in order to develop a range of marketable skillsets as well as a competitive CV. They value learning but don't see the point of full time undergraduate study and death by PowerPoint. The reality is that their experience at School has been often one of dynamic and engaging pedagogy. As adults we must celebrate and foster the quest for lifelong learning, wonder and the exchange of ideas. As my Dad told me when I was in my 20s – ‘cherish your formal education but remember it's only the beginning - never stop learning and thinking’. Lifelong learning is a gift that is transferable from one generation to the next. Those of us entrusted with the care of young people have the responsibility to ensure that this gift is tangible, recognisable and transferable.

Biographies

Dr Bruce Addison is Deputy Principal (Academic) at Brisbane Girls Grammar School, where he teaches Economics and Philosophy of Learning. For many years, he co-ordinated and taught post-graduate subjects in the areas of both curriculum and leadership at the University of Queensland. Bruce's current areas of interest lie in the areas of student agency and the development of professional practice.

Lifelong Learning Partners

Lifelong and lifewide learning is perhaps one of the most important responsibilities of all educators

Kate Bunker, Librarian: ALIA Education, Research and Policy, Australian Library and Information Association, and **Tatum McPherson-Crowie**, Library Manager Corporate Administration, Australian Catholic University.

The learning opportunities that we engage with throughout our lives, shape our life chances, experiences and understanding. How, what and when we learn has an impact on the nature and ways in which we teach. We would like to share with you some lifelong learning partnerships that have helped us and may help other education professionals to fulfill this responsibility.

Educator and commitment to self

Your first qualification is only the start of your professional journey. A commitment to lifelong learning in the form of continuing professional development (CPD) is essential for a sustainable career today. In the Library and Information sector, whether we identify as educators or not, we will need to learn to teach ourselves or our clients in formal and informal ways. Since 2000, the Australian Library and Information Association (ALIA) PD Scheme has been providing a supporting framework for our Members by having their ongoing commitment to CPD formally recognised with Certified Professional membership, now voluntarily undertaken by over 40% of eligible ALIA Members. From 2020 all new ALIA professional members will be automatically added to the ALIA PD Scheme in recognition that the hallmark of a professional in our sector is someone who commits to lifelong learning. This framework shares characteristics with the various professional standards frameworks for educators and is similar to the requirements for a certified practising accountant (CPA) in Australia. The growth mindset of investing in yourself through a commitment to CPD will become the norm across many professions.

This growth mindset and attitude is so important to a commitment to lifelong learning. In some respects, attitude will guide your path and become part of your learning DNA. Some learning explorations will lead to dead ends and others to challenging shifts in

thinking. It is this flexibility and curiosity that will serve to enhance and enrich. Combined with a healthy self-awareness can result in a deeper knowing of one's self, identifying where you find your energy and recognising when you need time out or additional support.

Lifelong learning ought to be self-directed, and often this self-discovery takes place at your desktop. The Learning team at ALIA curates a monthly newsletter PD Postings, which identifies readings, webinars, blogs, events and conferences. Many of the postings are at low or no cost. ALIA supports information professionals through skills audits and checklists, the ALIA Career Development Kit and the MyPD Tracking Tool to record and reflect on learning activities. You can also choose to specialise in areas; we currently have specialisations in data, government, health, indigenous engagement, LIS (library and information science) practitioner research, public library, research/academic, schools, and VET (vocational education and training) libraries. This means that PD Scheme participants can expand or enquire about new areas of interest, which are all based on a series of competencies and checklists to aid in identifying skills gaps or learning requirements. These new areas of capacity can strengthen professional self-confidence and illuminate life chances.

Reflection is a key part of lifelong learning and the ALIA PD Scheme. Good reflective practice is more than just a description or a recording of CPD activity. Reflection encourages practitioners to evaluate their experience, think about the relevance to their professional practice and link new learning to previous learning. These reflections and the recording of CPD form the basis of the annual ALIA PD Scheme audit, where 10% of PD Scheme participants are audited to ensure the integrity of the program. In part, these reflections form a proof of learning and encourage curiosity and questioning which are all essential in

developing lifelong learning habits of mind. The other part of these reflections is that they have the potential to transform our practice.

Educator and a Library / Librarian

Cultivating a relationship with your institutional, public or state library, and their staff, can have a powerful and rewarding impact on your lifelong learning. Our reciprocal learning relationship can improve your learning outcomes and at the same time our learning objectives which centre on understanding the needs and goals of our members. In turn we use this evidence to inform enhancing our Library services and resources. We are empathetic learners, who are exposed to and observant of the variety of contemporary learning practices. We value the quality of these individual and diverse approaches to learning, many of which may be specific to a professional learning community, an informal learning environment or a formal educational setting.

In a world where you might be challenged by the vast amount of information out there, library professionals are not only trained in research and critical thinking but can also help you develop your skills. Anyone can Google; not everyone can use specialist databases, find the most relevant information, identify credible sources and correctly cite their references. State, public, special and school libraries can all support your professional development by providing resources and modern learning environments. When was the last time you visited your local library?

We are a values-based profession, committed to a range of guiding principles, including education, social justice, privacy, democracy, citizenship, accessibility, equity, inclusion and diversity, empowerment, preservation and memory. Our institutions and staff use state of the art technologies where there are advantages such as equitable access or when ICT literacy is a desired outcome. We also understand when less is more, and a paperback book is fit for purpose. Encompassing the whole spectrum of learning needs and approaches, your Library can guide you to the information tools and resources that an educator needs for lifelong and lifewide learning.

Biographies

Kate Bunker is Librarian: ALIA Education, Research and Policy, at the Australian Library and Information Association, the professional organisation for the Australian library and information services sector. Kate now focuses on supporting both library and information science educators and library students, graduates and workers in education and professional development.

Dr Tatum McPherson-Crowie is the Library Manager, Corporate Administration at Australian Catholic University. Her research interests focus on problem-solving approaches to lifelong learning, workplace learning, and the ways in which academic libraries can respond to the changing nature of academic work.



Educator and a peer

We don't have a plan for lifelong learning at the moment. No plan is a plan when you don't have a destination in mind, but you do have an experiential need. In the context of the changing nature of the professional sector, the changing nature of our work and workplace change, what we do have are partners for lifelong learning and those partners are our plan. With these partners we are supported to 'be the beginner', learn by doing, learn by playing, and learn by exploring. Our learning partners strengthen our creativity and hold space for our vulnerability. A safe space where ideas can be shared, contested and discussed. Collaborative learning with and from a peer, a learning buddy, community of practice or personal learning network can be your learning plan or help you to create one.

The authors have worked together to develop, design and deliver continuing professional development programs for academic and research librarians. However, it is our partnership in the continuum of learning that has been both personally and professionally fulfilling and rewarding. Our learning partnership has continued through life changes, life challenges and cultivated life chances. Our professional lifelong learning is enmeshed in our careers, nevertheless broader than our position descriptions, roles and employment situation. We have used the accountability partner model for many years and regularly enjoy varying our approaches and the tools that we use to complement our activity. We have experimented with scheduled telephone catch-ups during MOOCs, GoogleHangouts for co-writing, Snapchat for reflective practice, and daily email check-ins when approaching deadlines. Supporting one another to maintain engagement and having fun learning has been rewarding in and of itself. Lifewide and lifelong learning with peers and partners has the additional benefits of improving emotional intelligence, developing a variety of core-, soft-, transferable- and social-skills. This indirect development of skills and intelligences also has the potential to offer opportunities for a range of learning-based relationships including cross- and reverse mentoring.

Developing a lifelong learning partnership with yourself, libraries, and peers will change your life.

Skills for a Post Truth Future

Critical Digital Literacy is the most important lifelong learning skill that we must teach our children

Vicki Greer, BA, MA, Grad Dip Ed, MACE Learning, and Support Coordinator, Coffs Harbour Senior College.

We live and teach in exciting times. Technology is a fact of our lives. Thanks to the internet, our access to knowledge seems limitless. We call our students Digital Natives. We tell ourselves that they are not only better off, but also better at it all, than those of us old enough to remember flipping through index cards to find books in the Library. The kids have more than we could ever hope to access in their pockets and their backpacks. The information revolution has become the label, if not the cliché of our time.

But what does this really mean? If we accept the Macquarie Dictionary's definition of information as 'knowledge communicated or received', our students, communities and the wider world should now be so much better informed than any previous generation. Surely our access to so much information should mean that holocaust denial, climate change denial, anti-vaccination misinformation, and every conspiracy theory would have been well and truly debunked by now. Fake news would not be a 'thing'. Neither would 'post-truth'. Yet, of course, that's not the case. As teachers, we despair over yet another 'cut and paste' job in an assignment. We roll our eyes at the misinformation, ugliness and abuse of the Comment Section of every online article, post, tweet etc. ... We are occasionally bemused when students come to class telling us that the moon landings were staged events, turning to dismay when they hand in an assignment that states that there is no actual evidence that the death camp at Treblinka ever existed. Are we becoming better informed or more ignorant? Is it becoming a case of more content, less actual information and understanding? Is being able to access so much so easily much actually helping?

These questions have serious implications beyond the school gates and point to some of the most important lifelong skills that we can teach our students. These are skills that will make the difference for our democracies and communities, now and in the future.

As educators, it may be far more useful to see ourselves and our students in the midst of a content, not an information, revolution. Our task then becomes clearer – to help our students to develop the critical skills that will allow them to gather information from the vast amount of content that they face online, now and in the future.

The Evidence

The evidence that too many young people do not have these skills is piling up. In 2016 the Stanford History Education Group assessed civic online reasoning – what they described as 'the ability to judge the credibility of information that floods young people's smartphones, tablets and computers' (SHEG 2016). Their study covered school and college students and summed up its findings as 'bleak'. They found that 80% of middle school students could not tell the difference between a news story and a paid advertisement on a website. High School students were shown a striking image of distorted flowers and a caption claiming that these are 'nuclear birth defects' caused by the 2011 Fukushima nuclear plant disaster from a photo sharing site. Only 20% of students questioned the source of the photo or the post and almost 40% argued that the post was correct because it included a photo. Less than a third of college students were able to evaluate how political agendas could affect the content of tweets about gun control. Closer to home, Tanya Nottley from Western Sydney University and Michael Dezuanni from Queensland University of Technology found that more than half the young people they surveyed reported 'hardly ever' or 'never' trying to check the accuracy of online news stories. (Nottley and Dezuanni 2017)

Solutions

The concept of the digital native seems dangerous when we do not embrace our responsibility to guide students through the online jungle. As teachers, we must separate the ability of our students to access technology from their ability to understand and use what they are accessing.

Is the solution bigger and better blocking programs? Filtering inappropriate material is necessary, particularly in schools and it certainly has its place, but it is not the whole solution. We can't control online activity outside our classrooms. We aren't teaching any skills that our students clearly need now and throughout their lives by relying on controls alone. Furthermore, we are facing far more subtle and insidious ways through which misinformation and inappropriate content can reach us.

What Should Students Be Learning?

A clearer understanding of the nature of online content and how it is presented is a first step. Students use Google as an authority when they search, but how many understand the commercial imperative behind the algorithms that give them the top results? In 2016, Observer journalist Carole Cadwalladr caused a stir in the UK when she revealed that a search using the autocomplete option for 'why did the holocaust happen' gave a neo Nazi white supremacist website as the top result. Cadwalladr was able to move the site from the top by paying for an advertisement on Google. She also followed their AdWords program for advice on how to get as many 'hits' as possible for her own link. (Cadwalladr, 2016) Nottley and Dezuanni point to the need for greater understanding of filters and paid content that control what we see on our social media feeds.

What Can We Do?

There is help out there, and lots of it. Media Arts has been introduced into the Australian Curriculum and the its curriculum focusses on critical skills and informed engagement. The 2016 US Presidential Election, emphasising the concept of 'fake news' and 'post-truth' seems to have been something of a wake-up call, particularly in the USA. (As a result, most of the resources recommended in this article are from US based institutions and organisations). The American University's Game Lab has developed Factitious, a free online game that tests your ability to spot fake news by swiping left or right. National Public Radio's All Tech Considered is a trove of practical advice and engaging articles for both teachers and students.



Students need to learn to become their own 'fact checkers'. ABC News Fact Check provides us with an immediate, Australian resource on the information

Biographies

Vicki Greer is the author / co-author of 15 commercially published textbooks (History 7-12); over 40 Newspapers in Education projects for News Limited/News International newspapers on a wide range of topics K-12 (The Australian, The Daily Telegraph and The Herald Sun); occasional columns for students in The Daily Telegraph and The Australian; She is a regular contributor to the daily Historical Feature for The Daily Telegraph; and has written and consulted on a broad range of digital education materials for a number of organisations such as Film Australia, the RSL, the NSW Royal Agricultural Society, ACARA and NESAs, as well as digital resources related to textbooks and NIE projects; Vicki was employed by St Andrew's Cathedral School, Sydney as a Publications Consultant and prior to that managed the annual School Magazine in all stages of production whilst in a full time Head of Department role; She has also written short magazine fiction for Pacific Publications and Australian Consolidated Press; She is currently a weekly contributor for Kids News, The Herald Sun.

FURTHER READING

Useful Sites for Teaching Internet Critical Literacy

- newseumed.org/unit/believe-it-or-not/
- www.gizmodo.com.au/2015/09/six-easy-ways-to-tell-if-that-viral-story-is-ahoax/
- drc.centerfornewsliteracy.org/
- Can You Spot Fake News?
- Test yourself (and your students) by playing Factitious, developed by the American University Game Lab. factitious.augamestudio.com

Sites to Help Your Students Fact Checking

- www.abc.net.au/news/factcheck/
- www.factcheck.org
- www.snopes.com
- www.politifact.com
- theconversation.com/au/topics/factcheck-qanda-6550

behind news content. For older students (and perhaps yourself) The Conversation fact checks the claims made by Q&A panellists. For US based stories, Pulitzer Prize winning politifact.org fact checks a vast array of news stories and political material and links to other sites that focus on critical engagement. It uses a 'truth-o-meter' icon that could be easily adapted for a classroom activity. Sites such as snopes.com are great for testing viral content. Washington's News Museum website contains lesson plans and activities focussing on critical media literacy.

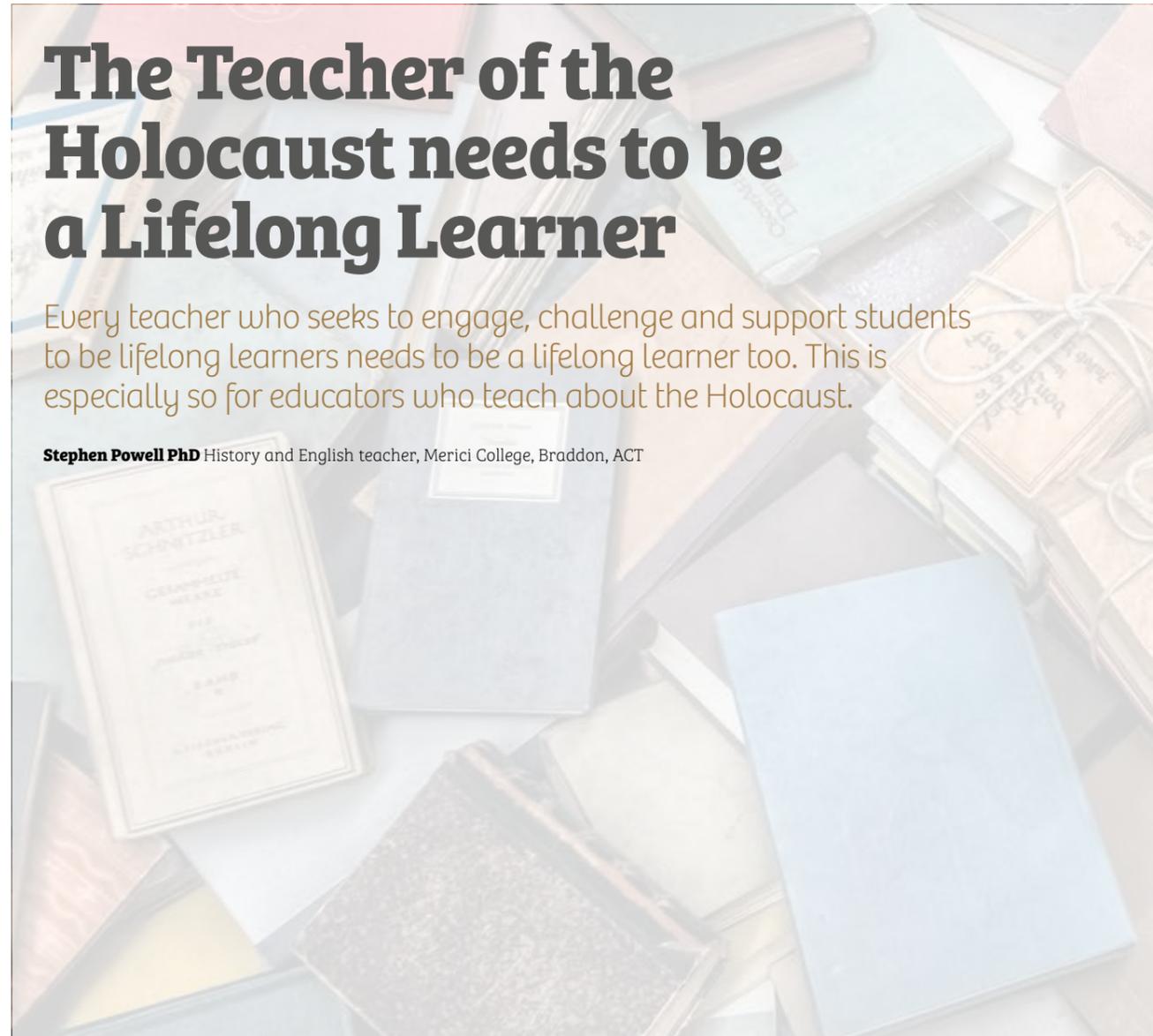
References

- Cadwalladr, C 2016, 'How to Bump Holocaust Deniers Off Google's Top Spot? Pay Google', The Guardian, December 20, 2016, accessed at <https://www.theguardian.com/technology/2016/dec/17/holocaust-deniers-google-search-top-spot>.
- Dezuanni, T and Nottley T 2017, 'Most Australians Can't Identify Fake News Online', The Conversation, November 20, 2017, accessed at <https://theconversation.com/most-young-australians-cant-identify-fake-news-online-87100>.
- Stanford History Education Group, Evaluating Information: The Cornerstone of Civic Online Reasoning, 2016, accessed at <https://www.csai-online.org/resources/evaluating-information-cornerstone-civic-online-reasoning>.

The Teacher of the Holocaust needs to be a Lifelong Learner

Every teacher who seeks to engage, challenge and support students to be lifelong learners needs to be a lifelong learner too. This is especially so for educators who teach about the Holocaust.

Stephen Powell PhD History and English teacher, Merici College, Braddon, ACT



The books that the deported people had with them when they were transported to a concentration camp at the Holocaust museum Yad-Vashem

The mass murder of six million Jews by Nazi Germany during World War II is harrowing to comprehend, demanding to study, and difficult to teach well. The prospect of planning a Holocaust-related learning sequence for our history, social science, religion or literature class can be daunting. Professional learning helps. The Gandel Holocaust Studies Program for Australian Educators is an extraordinary professional learning opportunity, which attracts teachers with a lifelong learner mindset. Such teachers seek the knowledge and tools to help their students understand a confronting period in history and reflect on tolerance and freedoms in their own society.

Lifelong learning is recognised as a force for good. In the wake of the unprecedented genocide of World War II, leaders established the United Nations, and with it the United Nations Organisation for Education, Science

and Culture. UNESCO promotes international peace by supporting efforts to combat what its charter describes as 'ignorance of each other's ways and lives' (UNESCO 1947). Teachers are seen to be at the forefront of lifelong learning for personal and communal development (UNESCO 2018). The UNESCO Commission on Education in the 21st century described the ideal teacher in the new millennium as 'an agent of change, promoting understanding and tolerance,' by continually developing their own knowledge and teaching skills (Delors et al 1996 p.141). Professor John Coolahan (2002 p.12) put this well:

If society's concern is to improve quality in education and to foster creative, enterprising, innovative, self-reliant young people, with the capacity and motivation to go on as lifelong learners, then this will not happen unless the corps of teachers are themselves challenging, innovative and lifelong learners.

UNESCO elaborated on this in a framework for lifelong learning, which includes the pillars of learning to know (formal education), learning to do (vocational learning), learning to live together (for social cohesion) and learning to be (personal growth). All of these forms of learning were on my mind when I joined 35 other Australian teachers in Jerusalem last year to learn about the Holocaust.

The Lifelong Learner mindset

Thirty years after I first read Thomas Keneally's gripping historical novel Schindler's Ark, I found myself standing beside Oskar Schindler's grave. I was at high school when I encountered the story behind the legend in 1980s Melbourne, consciously and formally a 'student'. A student – from the Latin *studere*, meaning I was expected to apply myself to the task of learning. I applied myself to Schindler's story and was moved. By the time I stood beside the grave in Jerusalem in 2017 I

was middle-aged, and had recently changed career to become a 'teacher'. A teacher – from the Latin *instruere*, meaning to build something upon others – building them up with ... curiosity? Skills? Wisdom? What had really driven me out of a higher-paid and more secure public service career towards teaching was not a desire to instruct, but a sense that I wanted to be a learner again, and to be around learners. This was precisely what I was doing in Jerusalem, and I was very moved.

I was at Schindler's final resting place because I had travelled to Israel to spend my vacation doing the Gandel-sponsored intensive professional learning course for Australian teachers. We were from all over the country, having won scholarships to Yad Vashem, Israel's Holocaust memorial, archive and international school for Holocaust studies. The Gandel program stands on the lifelong learning pillars: learning to know – nearly 100 hours of formal lectures and workshops;

learning to do – introductions to high-quality resources and teaching tools; learning to live together – valuing diversity and social cohesion; and learning to be – no participant could complete the immersive course without a genuine sense of personal growth.

Learning to be

It was nearing dusk in the Catholic Cemetery just outside the 16th-century walls of the Old City of Jerusalem. Behind us lay the Temple Mount / Dome of the Rock, a venerated place accessible to Muslims at times but not to Jews, and all the centuries of destruction, exile, rebirth and disputes that explain that situation. Before us lay Oskar Schindler's grave, strewn with pebbles that had been left as a mitzvah tribute by visitors to commemorate the enigmatic industrialist's heroic efforts to save 1,200 Jews from certain death in 1945. Beyond, on the horizon past the Mount of Olives, stood the 21st century 'security barrier' that isolates Palestinian communities in the West Bank and whose towering walls show how cemented-in the Arab-Israeli division has become.

Schindler, as retold by Keneally and later Steven Spielberg, was no angel. He had built a fortune through a ruthless competitive spirit, he had joined the Nazi Party to capitalise on business opportunities, and there was nothing admirable about his private life. But during the unprecedented genocide of World War II, Schindler became something else. Through a series of audacious ruses, in his enamelware factories in Krakow and an industrial plant near Prague that pretended to manufacture arms, he employed men, women and children who would otherwise have been murdered in a concentration camp. He is perhaps the best known of the 'Righteous Among the Nations' who intervened to save Jews in that terrible time. Very few intervened and very few were saved. If you want students to appreciate the gift of life, introduce them to a Holocaust survivor.

The location was awe-inspiring, and I had been given the honour of making a short speech on what Oskar Schindler represents for Australian teachers and students. Standing beside me was Mrs Eva Lavi, a Holocaust survivor. Mrs Lavi is 81 years old, but she was a Polish Jewish girl of just six when Schindler spared her from Auschwitz by including her as number 201 on his typed list of allegedly indispensable workers. Mrs Lavi was silent about her experience for 60 years, but recently has had the courage to explain to many audiences how grateful – and guilty – she has felt ever since. After we met her she would continue to recount her testimony, including at the United Nations in New York. My few words were simple and somewhat inadequate given Mrs Lavi's gracious company. I merely recalled the first time I learned about Schindler's life and shared the questions my students would ask Schindler if they could: Why did he take such risks for the sake of others? What made him see the humanity in the victims, when everyone around him seemed only to see only a pest, or pretended to see nothing? How could I not, I suggested he might respond. Wouldn't you?

Learning to know

The Holocaust is a complex and difficult subject. Learning about it forces you to confront 'what it means to be a responsible citizen' (USHMM n.d.). Teaching about it depends on a sound understanding of the history. As the director of Yad Vashem's teacher training says, 'every teacher who wishes to teach this chapter in human history first needs to be a student, building a concrete base of knowledge' (Imber 2013). This is the reason for the annual commitment by the Gandel Foundation and other donors to send Australian teachers to Israel to learn from world-leading academics. The course is a 12-month commitment, from preparatory online course work to three very full weeks in Israel, followed by individual pedagogical projects on which participants report back at a follow-up seminar.

The lecturing staff at Yad Vashem is a who's-who of Holocaust scholarship. Luminaries include Professor Yehuda Bauer, the greatest of all Holocaust scholars, and a global adviser on combatting genocide; Dr Alan Rosen, a pre-eminent scholar of Yiddish and Hebrew literature; Professor Jeremy Cohen, an expert on centuries of antisemitism; Dr Irit Abramski, a specialist on Nazi racial ideology; Dr Rachel Parry, an art historian; Professor Konrad Kwiet, Australia's most prominent historian in the field. Dr Efraim Zuroff's business card reads Chief Nazi Hunter, Simon Wiesenthal Centre. Lectures are interspersed with testimonies by men and women, now aged in their 80s or beyond, who against all odds survived the Holocaust. The details of systematic mass murder are horrific, the personal stories are devastating, and yet the message from survivors is uplifting. Mr Tibi Ram lost his family to the Holocaust and never returned to his Czech hometown; instead he moved to Israel, became a soldier, and in his 90s still lives in a collective kibbutz. The program of expert lectures and survivor testimonies is curated by Ephraim Kaye, a master educator in his own right.

Learning to do

Professional learning for teachers is not only about the 'what' but also the 'how'. We discussed the best ways to guide students' learning. These can be summarised in some key dos and don'ts:

Do	Don't
Control students' access to disturbing information	Encourage students to do unguided inquiry research
Focus on the effects of propaganda	Focus solely on Nazis / perpetrators
Elicit critical thinking with primary sources	Role play or traumatise students
Link students to survivors	Romanticise rare heroes who saved Jews
Use art and poetry	Foster misplaced empathy
Visit, or use materials from, a Holocaust museum	Rely on feature films

The essence of Yad Vashem's educational philosophy is that:

- Students must come 'safely in' to the subject and then go 'safely out'
- Students need to start by learning about Jewish life before the Holocaust
- We need to appreciate how people lived in a world of chaos: the ghetto, not just the camp
- There were perpetrators, victims and bystanders
- We need to rescue the human being from the piles of bodies
- Students should also explore how people lived afterwards.

Holocaust museum websites make numerous materials and lesson plans freely available, and offer professional learning courses on-line or on-site. The Sydney Jewish Museum offers regular short courses, on the Australian Curriculum–History, on Judaism for religious studies, on the legacies of genocides, the Holocaust in film and literature, and more. It publishes guides for teaching the Holocaust (Gelski 2003), as do Holocaust museums in the United States (USHMM2 n.d.) and Yad Vashem itself, including through the excellent 'Echoes and Reflections' website (ADL n.d.). Alumni of the Gandel program can help their fellow teachers use these with their classes and to apply for the course themselves (Yad Vashem 2018).

Learning to live together

'How was it humanly possible?' (Steinfeld 2002) is the eternal question for anyone who learns about the Holocaust, and there are few trite answers. The murders were committed by educated human beings, and their victims were their neighbours. Teachers of the Holocaust are reminded that we have a 'solemn responsibility to make students aware not only of the evil that humankind is capable of but also the processes that allow such depravity to take root and flourish.' (Gelski 2003 p.8) Some organisations tailor their Holocaust learning materials specifically to this instrumentalist view of history, to focus on learning to live together in a time when intolerance is rising. The 'Facing History and Ourselves' non-profit, for instance, frames its Holocaust resources in terms of 21st century bigotry, antisemitism and racism in the United States. In October 2018, within a day of a gunman opening fire at a Pittsburgh synagogue while shouting 'Death to all Jews,' Facing History circulated a teaching idea about contextualising the horrific event (FHO 2018). Yad Vashem sits on the Mount of Remembrance, a quiet forested hill in Jerusalem. At its heart is a breathtaking 4,200m² museum that is visited by nearly a million people each year. The memorials and sculptures around its beautiful grounds are efforts to remember and make sense of the loss. Inevitably, visitors ask each other how human beings can do such things to each other. This is a powerful question for a lifelong learner, and one which we need to make sure that our students keep asking.

Biographies

Dr Stephen Powell PhD teaches high school History and English classes at Merici College, Canberra. Teaching is his second career, since graduating from Monash University in 2000 with a PhD in 20th century history. Before entering the teaching profession he worked in environmental and heritage policy, and represented Australia at international conferences, including United Nations negotiations. Stephen was awarded a scholarship to participate in the 2017 Gandel Holocaust Studies Program for Australian Educators in Israel. He has presented research findings and teaching ideas to state and national conferences of the History Teachers Association of Australia, and is currently designing his school's introduction of the International Baccalaureate Theory of Knowledge course.

References

- Gandel Holocaust Studies Program for Australian Educators application details: www.yadvashem.org/au/en/education/international_projects/australian_educators/about_program.asp
- ADL: Anti-Defamation League. (n.d.). 'Echoes and Reflections: Teaching the Holocaust. Inspiring the Classroom.' www.echoesandreflections.org
- Coolahan, J 2002, 'Teacher Education and the Teaching Career in an Era of Lifelong Learning', OECD Education Working Papers No. 2. Paris: OECD Publishing. <http://dx.doi.org/10.1787/226408628504>
- Delors et al. 1996, Learning: The treasure within. Report to UNESCO of the International Commission on Education for the 21st Century. Paris: UNESCO.
- FHO: Facing History and Ourselves 2018, 'Responding to Pittsburgh'. www.facinghistory.org/educator-resources/current-events/responding-pittsburgh
- Gelski, Sophie 2003, Teaching the Holocaust Years 9-12, Sydney: Sydney Jewish Museum.
- Imber, Shulamit 2013, 'The Pedagogical Approach to Teaching the Holocaust', Teaching History, vol. 47, no. 3, Sep 2013, pp. 21-24.
- Keneally, Thomas 1982, Schindler's Ark. London: Hodder and Stoughton.
- Steinfeld, I 2002, How Was It Humanly Possible? A Study of Perpetrators and Bystanders During the Holocaust. Jerusalem: Yad Vashem.
- UNESCO 1947, 'Constitution of the United Nations Educational, Scientific and Cultural Organization.' Adopted in London, 16 November 1945.
- UNESCO 2018, 'The contribution of lifelong learning to development – personal and communal.' International Review of Education – Journal of Lifelong Learning, vol. 64, no. 1, Feb 2018.
- USHMM: United States Holocaust Memorial Museum. (nd). 'Why Teach About the Holocaust?' www.ushmm.org/educators/teaching-about-the-holocaust/why-teach-about-the-holocaust
- USHMM 2: United States Holocaust Memorial Museum. (nd). 'Guidelines for Teaching About the Holocaust.' www.ushmm.org/educators/teaching-about-the-holocaust/general-teaching-guidelines

Teaching Controversy

The 1970s classroom, if I am not misremembering my teenage years, was a theatre for dangerous ideas. Everyone was entitled to an opinion, but with the proviso that it might be accepted or rejected or, more frequently, accepted only in part

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Nobody could hide behind the protection of a ‘safe space’, but then truth never seemed to be absolute or incontrovertible. It was, instead, provisional. None of us, as far as I recall, were ‘triggered’ by our classroom free-for-alls. Maybe we just didn’t know the post-modernist terminology to describe the feeling of being offended by another point of view. That said, the teacher, appreciating there had to be some rules for harnessing adolescent precociousness, invariably played the role of arbiter of fair-mindedness. This type of education set me on a path of lifelong learning.

Jerusalem, January 2012, was the site of my most recent encounter with triggering. Ephraim Kaye, Director of International Seminars at Yad Vashem, had just presented a lecture to 23 Australian educators, titled *Holocaust Denial*, which included a series of primary sources. These included rare footage of a Nazis massacre of Jews in Latvia, extracts from the minutes of the 1942 Wannsee Conference, a report by Himmler to Hitler detailing the execution of 363,211 Jews from September to December 1942, the architectural plan of Crematorium II at Auschwitz-Birkenau, and so on. (Kaye, 2011). Kaye then did a most unusual thing. He asked if there was any single piece of evidence we might point to that proved the Holocaust happened. Most of us answered as best we could. One by one we did a roll call of the sources outlined on his whiteboard, the very ones he had himself provided over the course of the previous hour. One by one he dismissed each of them as, in and of itself, inconclusive. And then, without further instruction, he asked us to break for morning tea.

“You can’t just leave like that!” one of my colleagues exclaimed, remaining in her chair. “We haven’t come all the way here just so you can tell us the Holocaust didn’t happen.”

Kaye shrugged. “We’ll discuss where we might go next after the morning break. Get yourself a coffee and we’ll talk about the answer to our problem then.”

My compatriot was in tears. She was soon being comforted – emotionally but not intellectually – by Kaye’s

assistant. The rest of us awkwardly vacated the seminar room. I cynically shared the thought with someone, as we stirred sugar into our drinks, if the answer might not be along the lines of the central joke in Douglas Adams’ *The Hitchhikers’ Guide to the Galaxy*. That is to say, ‘42’ or, in other words, the answer would be that there is no answer to the great imponderables of life.

The real answer, however, was that there is no absolute answer. The best we can do, as Kaye explained after we reconvened that morning, is to seek the truth by fairly evaluating the various elements of evidence that are available to us. No single knockout proof exists that categorially demonstrates some six million Jewish individuals perished at the hands of the Nazis. On the other hand, source after source points in the same direction. There is, then, a convergence of evidence that corroborates the view that the Holocaust, as most of us conceive it, occurred between 1941 and 1945. The commonly accepted truth, for a student of History, might be provisional and open to continual re-examination, but that is not to say it is readily usurped. Truth, however conditional, is more powerful than mere opinion.

My time in Israel inspired me to create an educational unit titled Holocaust Denial and Holocaust Inversion. The instructions include:

Students must find a contested issue in the subject of Holocaust Denial and Inversion. They must research the topic and divide their response into three parts: an overview; argument; and counter-argument. You will be making a six-minute presentation to the class. Visuals are encouraged but are in addition to the speech.

I taught Year 11s and 12s the International Baccalaureate in History for some sixteen years, but my *Holocaust Denial and Holocaust Inversion* educational unit, which is done in Middle School, has provided some of the most worthwhile moments in my entire teaching career. There are a multitude of Holocaust Denial topics from which to choose, including the David Irving versus Penguin and Debra Lippstadt Trial, Hitler’s responsibility for the Holocaust, Daniel Goldenberg’s ‘Willing Executioners’

Thesis, Christopher Browning’s dissenting view about ‘Ordinary Men’, the meaning of the Wannsee Conference, the queried role of Zyklon B in the gas chambers, claims and counter-claims about the Auschwitz death camps, the legitimacy of the Nuremberg Trials, the culpability of Albert Speer, disputation about Holocaust statistics, Eichmann in Jerusalem, the Adelaide Institute’s ‘reversionism’, and even the authenticity of Anne Frank’s Diary.

There are, for instance, 287,000 Google results alone for *Anne Frank Diary Hoax*. It is not enough to dismiss attacks on the providence of Anne Frank’s famous diary as so much nonsense. The faithfulness of the 1947 book to the actual war-time writings of Anne is genuinely problematic. After all, Hans Frank, Anne’s father, is credited as co-writer of that original publication. How much did he contribute to the book? Did he, perhaps, fabricate the whole thing? The answer is complicated, but we can be assured – despite the best efforts of the ‘Diary Deniers’ – that the voice of Anne Frank is speaking to us when we read her book. To start with, Hans Frank is credited as ‘co-writer’ only in the sense that he collected and edited Anne’s writings to create the artefact we now know as the 1947 version of *The Diary of Anne Frank*.

Hans Frank was, admittedly, a heavy-handed editor. For instance, he expurgated all his daughter’s references to her evolving sexual awareness. Even Anne herself papered over several spicy jokes, some of which were not revealed until this year thanks to the latest technology (Biddle 2018). In the end though, we can say that *The Diary of Anne Frank*, even the 1947 bowdlerised incarnation, was no hoax. The best response to the Diary Deniers, and Holocaust Deniers per se, is not to ignore their allegations in the hope they might go away, but to take them on. Let the Holocaust Deniers tell their tale – even if it creates a dangerous space – and then, like the historical detectives assisting Debra Lippstadt at her trial, counter with forensic fire.

Holocaust Denial also exists on a personal level, as in the case of the trial of Adolf Eichmann in 1961. Eichmann, who played the key role in co-ordinating the transportation logistics of the extermination camps, claimed from the beginning of proceedings that he ought not be held responsible for the Holocaust: “There is a need to draw a line between the leaders responsible and the people like me forced to serve as mere instruments in the hands of the leaders.” (Kershner 2018). Hannah Arendt, in her seminal *Eichmann in Jerusalem: A Report on the Banality of Evil* (1963), concluded that Eichmann deserved his fate at the end of a rope, and yet she nevertheless asserted the Nazi bureaucrat had been incapable of thinking for himself, and was less the ‘monster’ of our imaginations than terrifyingly normal, a cliché-ridden clown even – banal, in short.

One Year 10 student, using the methodology of argument and counter-argument for his research task, juxtaposed Hannah Arendt’s thesis with the newer proposition

outlined in Bettina Stangneth’s *Eichmann Before Jerusalem: The Unexamined Life of a Monster* (2014). Stangneth, who possessed extensive material concerning Eichmann’s exile in Argentina, determined that the former SS-Obersturmbannführer had all along been a serious exponent of Nazi ideology. He knew what he was doing and why he was doing it. Eichmann, a lethally committed anti-Semite, was passionate about his role in the Holocaust, to the extent of learning Hebrew in the way a hunter might study his prospective prey.

Adolf Hitler’s exterminatory anti-Semitism, with its apocalyptic millennialist fantasy about a cosmological struggle between the Aryan race and its alleged nemesis, the Jewish people, became the moral compass of a Nazified nation. It was a living totalitarian ideology that informed the imagination of not only extermination camp officers and the defendants on trial at Nuremberg. My Year 10 student, in the course of his research task, found himself tackling the most complex and enigmatic aspect of the Holocaust: not the when and how of it, but the why of it. Could I ask for a better educational outcome? And was he now, a contrarian of sorts, on the path to genuine lifelong learning?

If there is any downside to my involvement with the Gandel Programme, which sponsored me to study in Jerusalem, is that I know I will never get to the bottom of everything. And yet that does not have to stop me from trying. Twice I have returned to Israel and I will be there again, as precocious as I was as a student in the 1970s but, I hope, with as much fair-mindedness as my teachers demonstrated back then.

Details about the Gandel Programme can be found at this link: https://www.yadvashem.org/au/en/education/international_projects/australian_educators/index.asp

References

- Arendt, H., 2006, *Eichmann in Jerusalem: A Report on the Banality of Evil*, Penguin Classics, London
- Biddle, J., ‘Researchers uncover Anne Frank’s “Dirty Jokes” in her diary’ <https://www.yahoo.com/news/researchers-uncover-anne-franks-dirty-jokes-in-her-diary-173203326.html> [accessed September 2018]
- Kaye, E., 2011, *Combatting Holocaust Denial Resource Materials*, Yad Vashem: The International School for Holocaust Studies, Jerusalem
- Kershner, I., ‘Pardon Plea by Adolf Eichmann, Nazi War Criminal, made public’ <https://www.nytimes.com/2016/01/28/world/middleeast/israel-adolf-eichmann-holocaust.html> [accessed September 2018]
- McCann, D., 2014, *Holocaust Denial and Inversion Education Unit*, <http://darylmcann.blogspot.com/2014/03/holocaust-denial-inversion-education.html> [accessed September 2018]
- Stangneth, B., 2014, *Eichmann, Before Jerusalem: The Unexamined Life of a Monster*, Scribe, Melbourne

Biographies

Daryl McCann has taught History for 38 years, including 16 years teaching the International Baccalaureate. Daryl McCann was a participant in the 2012 Gandel Programme in Jerusalem. He has written for The Australian newspaper, Spectator Australia, Quadrant magazine and the Salisbury Review. He has a blog at <http://darylmcann.blogspot.com.au>

THREE PART DISCUSSION

Personal Perspectives on Life Long Learning

A preservice teacher perspective

Patrick Hii @HiiTeach

My initial career path as a chef meant that I had to endure many hours of work often in hostile kitchen environments. The hours were long, often sixty to seventy hours a week and involved enduring verbal obscenities and many demoralising remarks. I would often arrive home dejected. My sleep was restless as I knew what was going to face me on return to the kitchen the next day. It was a terrible environment but it taught me much about resilience, determination and growth. It gave me a hunger for lifelong learning as a means by which to be released from this cycle and also a means by which to improve. Failure was not going to be an option because grit, learning and determination was to be a passport to better things.

The picture I paint of the kitchen environment is perhaps a little misleading. Swift rebuke often taught me much. Failure would have had terrible consequences. Senior chefs had much to teach me even though I didn't like their methodology! All of this made me realise that it is possible to learn and grow through difficulty.

I discovered that an essential co-partner of adversity is support. Support and love from a warm community is a precondition for learning and growth. I credit my fruitful journey of lifelong learning to the encouraging Christian community around me. I recognise that effective learning is not a lone journey, but is enriched by a supportive, loving network that spurs one another onto greater heights.

My learning journey has been a strange mix of repeated failures, reflection and action enveloped by loving support. I believe this to be the essential alchemy necessary for establishing a habit of lifelong learning. Lifelong learning is not limited to one's specialisation, career or interests but rather is an overarching attitude and principle of one's life. We see it in children who are unafraid of the quirky solution and the individual who is unafraid to ask the 'dumb' questions. Humbled by the generous support I have received, I find myself to be resilient and willing to embark through failure as I continue my thrilling, thriving quest of lifelong learning.

I hope in some small way I will be capable of imparting at least some of this to my students so that they will be lifelong learners in our world of challenge and change.

Biographies

Patrick Hii is a Pre-Service Teacher studying at the Australian Catholic University

What does lifelong learning mean to me? The perspective of an early career educator

Matthew D. Norris, PhD, AACE

It is perhaps only a mere handful of times that I remember the importance of 'lifelong learning' being emphasized to me throughout my education. And yet, when I speak to my students, it is always at the center of my thinking. Rather than immediately confronting learners with facts, figures and content specific advice on any subject matter, I always endeavour to take a step back and emphasize, while seeking to inspire, the importance and centrality of lifelong learning.

Last summer I attended a special international meeting focussing on scientific research and international relations in the south of Germany. There were many impressive intellects assembled many of which represented the world's most gifted scientific talents. One statement that moved me profoundly was a relatively simple one by Professor Dan Shechtman of Israel, winner of the 2015 Nobel Prize in Chemistry. His advice to his younger colleagues about lifelong learning rested on his belief that "learning is wonderful".

This statement is such a simple statement yet it reaches to the very core of our humanness. Wonder is such a magical word as it encapsulates the inquisitiveness that sets us apart from other animals. Professor Shechtman reminds us that at the core of learning, no matter how simple, rests the intellectual prowess resulting from the joy of wonder and the endless possibilities founded on inquisitiveness.

I will never forget Professor Shechtman's words. They have prompted me to realise that the reason I enjoyed the education I received in high school; the reason I excelled in my studies at university; the reason that I could contribute to new cutting-edge

scientific research during my doctoral years and as a postdoctoral scientific researcher; and the reason I feel that my students derive at least some inspiration and enthusiasm from my counsel, is because I do understand the significance of learning as a way of life. Learning is a way of thinking and being that is indeed lifelong. In fact it could be argued that lifelong learning is an essential precondition and responsibility of what it means to be truly human.

Shechtman also insists that learning is not exclusive to institutional education. It is not reserved for the university and it is not an art that can only be practiced by scholars and skilled researchers. While there is understandably an emphasis on learning, independent thinking and creative thought within these more specialized pursuits, learning and more specifically lifelong learning is so essential for the continued development of any concept of civility.

Let's forget the narrow constraints of disciplinary. Statements such as: "I'm not a maths person," "all politicians speak non-sense," and "I don't use these new technologies" are most unhelpful. No one person can be an expert in everything. In fact, the best one person can expect to do, is to barely scratch the surface of understanding the infinitely complex and fascinating world we live in. We must always enjoy and embrace learning something new, no matter how seemingly difficult or awesome. This is what lifelong learning means to me.

Professor Shechtman's valuable words have taught me so much about lifelong learning, and I can only hope that his wisdom spreads further than that very special meeting in Germany.

Biographies

Matthew D. Norris was born and raised in the southern suburbs of Adelaide, where he studied chemistry at Flinders University, earning his bachelor degree and doctorate. In 2014, he worked at Princeton University in the United States as a Fulbright Postgraduate Scholar; and currently, he is a recipient of the Humboldt Bayer Postdoctoral Fellowship in Germany. Throughout his study and research, Matthew has taught many students in the tertiary sector and frequently remarks that "a truly fulfilling day is a teaching day!"

A Father's Day breakfast: Some musings about lifelong learning

Mrs Kim Cohen

On Fathers' Day my husband and I went to a local coffee shop for breakfast. As we chatted, Jim pointed out a family sitting at a neighbouring table. Mum, dad and son (aged about ten) were also celebrating this special day. It appeared to us that they weren't engaging or being particularly present with each other. Disengagement and a lack of presence seemed to be the norm to them and they were just living through their ritual. As we looked around it seemed to have been copied by many of the families who were also out 'celebrating' this particular day. Dad studiously read the paper while shovelling food into his mouth, mum was scrolling through her phone, as his son quietly ate his food staring into the distance. What a lost opportunity on so many levels. Family meals were once, and still could be, the perfect times for parents to lay the foundations for inquisitiveness and lifelong learning. Discussion, debate, laughter and the occasional tear are such great teachers - perhaps the best!

According to Hodson (2017), lifelong learning is 'the ongoing, voluntary and self-motivated pursuit of knowledge for either personal or professional reasons'. Many researchers in this field tend to focus on the learning that occurs once a person has completed their schooling or initial tertiary studies. They focus on the academic learning that a young adult may complete to launch them into their future career.

Lifelong learning is a much bigger concept.

It is the learning in which we engage from the minute we are born to the minute we die - it is indeed lifelong. When we stop learning we stop functioning as a fully participative member of our society. It is learning, well beyond the classroom or lecture theatre, it is active inquisitiveness and a life lived by challenge and questioning.

In order to spend a lifetime learning, three essential characteristics are necessary: curiosity, grit and humility. These are characteristics that I witness in bucketfuls in young children. These skills need to be nurtured otherwise they tend to diminish during adolescence and further into adulthood, especially as cynicism and ambition take hold. In secondary school students, curiosity and interest in learning are too often replaced by an obsession with results as learning becomes less about awe and wonder and more about destination.

Back to the coffee shop family. A young boy who is still learning through mimicking adults is discovering that it is the norm to be self-engrossed when in a social environment, that it is acceptable to withdraw from your current company and to be ambivalent of those around you. This is the age when parents can pique the curiosity of their children, teach them the grit required to immerse themselves in learning and encourage humility to accept that there is so much they do not know, so much to question and so much to listen to. Leo F. Buscaglia (1982, p.188) puts it succinctly in his book, *Living, Loving and Learning*, '...we learn from modelling. We don't learn from being told. We learn from watching, observing, picking it up and trying it out. That's the way we learn. It's a volitional discovery process'.

The home is where children can learn the fundamentals of dialogue; the process in which people engage in 'free and creative exploration of complex and subtle issues, a deep 'listening' to one another and suspending of one's own views' (Senge 2004, p.221). If parents and teachers can develop in children the ability to be open to influence; to formulate ideas based on robust conversation; to listen in order to learn and not just to focus on their response, then we will be creating a society in which lifelong learning can thrive. We live in an environment where politicians will engage in debate, but not in dialogue. As the influential adults in these young lives we must role model listening and observation as well as talking. We must hear with our ears and not just speak with our thumbs!

When children, adolescents and adults alike take part in real dialogue, deeper learning occurs. So many avenues for development emerge. Neuroplasticity and a growth mindset are terms that have become fashionable in educational institutions worldwide; and so they should. Whilst some of the growth mindset rhetoric is currently being questioned, even by Carol Dweck (2015), it is very important to keep it in mind. At its core it remains true. One's abilities and talents are not fixed and learning from one's mistakes and perceived failures are indeed learning opportunities and avenues for growth. Unfortunately, in many contexts, the growth mindset concept has been inappropriately linked to effort only. Carol Dweck (2015) states, 'effort is not the only thing. Students need to seek new strategies and seek input from others'. In so doing they will develop their brains. How much easier will this be for them if they have learnt how to listen and, how to engage in meaningful



dialogue? This must be role modelled actively. We cannot just expect our young people to do it. Active family time is so important.

As adults we need to ensure that the children in our lives can look to us as role models in this business of learning. They need to be able to recognise in us the curiosity, grit and humility required to be immersed in learning, be it intellectual, emotional, spiritual or humanitarian. They should understand the importance of, and be able to actively contribute to, robust dialogue, whilst seeking challenges and strategies to develop and grow their brains in order to become role models themselves for the next generation of lifelong learners. I learned much from my Father's Day breakfast. What a wonderful thing it is to pause, reflect and to wonder!

References

- Boyd, L 2015, After watching this your brain will not be the same, TEDx Talk, viewed 16 September 2018, <http://www.youtube.com/watch?v=LNHBMFCzgnE>.
- Buscaglia, L 1982, *Living, Loving & Learning*. Ballantine Books, New York.
- Dweck, C 2015, Carol Dweck revisits the 'Growth Mindset', steaming video from Education Week, viewed 16 September 2018, <http://www.edweek.org/ew/articles/2015/09/23/carol-dweck-revisits-the-growth-mindset.html>
- Hodson, L 2017, We are the role models for lifelong learning, streaming video from EducationCloset, viewed 16 September 2018, <http://educationcloset.com/2017/12/01/lifelong-learning/>
- Senge, P 2004, *The Fifth Discipline, The Art and Practice of The Learning Organisation*, Doubleday, New York.

Biographies

Mrs Kim Cohen is the Principal at The Glennie School in Toowoomba, Queensland. Kim holds a Bachelor of Science and a Higher Diploma in Education and recently completed her Master's Degree in Educational Leadership from the Australian Catholic University. Kim's professional background includes executive roles in well-respected girls' schools in Australia, including St Margaret's AGS, Lourdes Hill College and Brisbane Girls Grammar. Kim is a Mathematics teacher and has held positions including, Deputy Principal, Assistant Principal, Head of House and Head of Year.

**VIEW
FROM
THE
STATES**

NEW SOUTH WALES



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There has been a lot of ACE and education activity in New South Wales over the last quarter.

September delivered our Annual State Awards Dinner with 200 registrations joining the College to celebrate excellence in education throughout our State. October saw a flurry of activity with many of our ACE regional groups delivering incredible events in celebration of the education profession and World Teachers Day.

The New South Wales Education Standards Authority (NESA) has commenced a review into the NSW school curriculum to 'ensure our education system is preparing students for the challenges and opportunities of the 21st century.' The review, the first in almost 30 years, is being led by former ACE National President and Chief Executive Officer of the Australian Council for Education Research, Professor Geoff Masters.

Public consultation has commenced and it is absolutely critical that teachers actively engage with this process and have their say. Reviews like this provide the platforms from which educators can constructively drive and change, for the better, the education system not only here in New South Wales but across Australia.

The New South Wales Minister for Education, Rob Stokes also recently announced the introduction of the Teacher Success Profile (TSP) enshrining certain benchmarks that university graduates must meet to be eligible for employment as teachers in NSW public schools.

The TSP has five main criteria that new graduates must satisfy in order to be considered for employment within the NSW public school system. These criteria include:

- A minimum Credit grade point average
- Proven sound practical knowledge and ability
- Superior cognitive and emotional intelligence (measured via a psychometric assessment)
- Demonstrated commitment to the values of public education
- Recognition that teaching is relational

Following the announcement of the TSP, the Government is consulting with Principals and teachers on the policy's application which is scheduled to commence in 2019.

AUSTRALIAN CAPITAL TERRITORY



Associate Professor David Patterson,
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ACE ACT with the generous support of the Faculty of Education, University of Canberra recently held a Breakfast and Briefing with the aptly titled 'The Future of Education and Skills' presented by ACE National President, Dr Phil Lambert. This was incredibly timely given the release of the ACT Government's, 'The Future of Education: An ACT education strategy for the next ten years, which was released in October. The release of the Strategy is the culmination work carried out since February 2017 and consultation and input from over 5,000 people.

According to the Strategy its foundations are built on four principals for implementation and

a 'roadmap' for action over the next ten years. The four principals have been articulated as:

1. Place students at the centre of their learning
2. Empower teacher, school leaders and other professional to meet the learning needs of all students
3. Build strong communities for learning
4. Strengthen systems to focus on equity with quality.

What is of great interest to ACE ACT members is recognition and inclusion of empowering the educator as being a central tenet of the ten-year plan. This was something that was raised during our lively discussion at the Breakfast and Briefing event.

As educators, we all recognise the fact that we now, more than at any other point in history, work in incredibly complex, multi-faceted, multi-dimensional and challenging times. As professionals, we need to work hard to ensure we have agency of our profession and drive it in ways that help us to deliver the best possible education outcomes for our students, no matter what sector, system, subject or level we operate within.

Further to this, we recognise (as has been articulated in the Strategy) that we are part of a diverse community through which positive education outcomes must be delivered. Although the Strategy's main focus is on formal education it is timely to consider how the actions that will be implemented over the course of the next ten years with further entrench the philosophy and culture of lifelong learning through our community.

Of significant importance will be how we, the educators of today, ensure the educators of the future have an excellent foundation in ensuring not only their students but they themselves are champions for lifelong learning. The Future of Education Strategy is the next step in our constantly evolving profession and it is through the on-going

efforts of the Australian College of Educators nationally and at a State and Territory level that we, Australian Educators, can ensure that we actively contribute and direct the future of our profession to have the most positive possible outcomes for student education.

TASMANIA



Dr Jill Abell MACE,
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Tasmania is celebrating 150 years of public education this year. In the last week of October, the Hon Jeremy Rockliff MP, Minister for Education and Training in Tasmania announced \$179 million was being spent on education infrastructure across Tasmanian government schooling, including two brand new schools, four major school redevelopments and six new early learning hubs. The Department of Education's Get Involved campaign will allow consultations with Tasmanians to shape their schools and communities.

Initially, this campaign will support a six week community consultation in projects such as the \$20 million redevelopment of the Penguin District School, the \$30 million new Brighton High School and the \$4.3 million upgrade of the Jordan River Learning Federation School Farm. Further consultations are scheduled for 2019 for a \$25 million redevelopment of Sorell School, a \$20 million revitalisation of Cosgrove High School and a new \$20 million primary school at Legana.

The Tasmanian government press release of October 3 2018 identifies that 38 Tasmanian schools have extended their final year to Year 12, with 5 more ready to extend in 2019 and a current request for

further applications. The Apparent Retention Rate of students to Year 12 stands at 74.1 per cent whilst the direct retention rate tracking individual students from Year 10 to Year 12 is now at a record high of 71.6 per cent. This is pleasing news for Tasmanian tertiary education and training, the peak professional educational associations as well as business and industry as the attainment rate of the Tasmanian Certificate of Education is at 58 per cent and highest on record. The actual target is the national average of 75 per cent by 2022.

The Grattan Institute's report Measuring Student Progress: A state-by-state report card, which makes comparisons on student progress using NAPLAN data was also welcomed last month. Tasmania broadly matches the national average for student progress in reading, writing and numeracy when taking the State's socio-economic status and disadvantaged schools into account. The government has made a commitment of \$6.75 billion across the forward estimates to include the employment of an additional 250 teachers over the next six years as well as extending more secondary schools to years 11 and 12 to keep students engaged in education. The recently released TasTAFE Annual Report shows a significant increase in apprentice numbers over the last three years. The additional apprentice classes are helping to meet new demands for skilled workforces, such as assisting the strong growth in the State's building and construction industry.

We have taken a digital-first approach to ACE communications in Tasmania. Members will be aware of the ACE strategy of increasing digital content and engagement strategy and with our diverse Tasmanian membership across the Early Childhood, schooling, TAFE and University sectors we believe we can no longer rely on Hobart-based meetings alone to engage statewide membership or reach new audiences. Thus our new strategy includes building a new web service,

information through Professional Educator, the monthly Elerts via email, and using social media including Facebook and the ACE Podcasts.

The Tasmanian Branch Management Committee continues to work on various projects behind the scene. It consists of Dr Jill Abell (President), Dr Julie Rimes, Dr Prudence Francis, Dr Duncan Bradley and Mr Alec Young. Julie Rimes is part of the Professional Educator editorial team. Duncan Bradley has oversight of the major events program and already has confirmed the date for the 13th Annual Richard Selby Smith Oration as Tuesday 14 May 2019 with Professor Toby Walsh, Scientia Professor of Artificial Intelligence, University of New South Wales as the speaker. Her Excellency Professor, the Honourable Kate Warner AC, Governor of Tasmania will chair the lecture. The Sir Stanley Burbury Theatre lecture will be followed by a dinner at the University's Club, Sandy Bay Campus. Please note a 'save the date' opportunity for the 14 May, 2019.

The Management Committee is also supporting national preparations for the celebration next year of the 60th Anniversary for the Australian College of Educators. Jill Abell and Pru Francis are working with College Archivist, Tony Ryan on his story in educational broadcasting, as well as gathering together significant elements of the College history for publication next year. The long-term goals of the Archives Taskforce Project team are to assist all state and regional branches to make sound decisions about the retention and preservation of Australia's educational history and events of national significance. The ACE Archives are now housed at the ACE National Office, sharing premises at the Melbourne Graduate School of Education at Melbourne University. Much of it will come alive during the 60th Anniversary and be discoverable by TROVE, as one of the most important national history collections.

VIEW FROM THE STATES

The Tasmanian Management Team invite all members in Tasmania to consider joining this dedicated group of volunteers above to help deliver ACE events and services at our local level. Such services and roles could include:

- contributing articles for Professional Educator;
- working with the National Office to develop online content including webinars and ACE podcasts on vital areas of concern to our profession;
- working within the College and with the UTAS Faculty of Education to continue the mentoring programs for pre-service and early career educators; and
- join the Working Groups on Early Childhood, Vocational Education & Training, School Leadership, Early Career Educators and Academic & Tertiary Educators.

We would welcome your contribution. Please contact Jill Abell or Helen Jentz.

WESTERN AUSTRALIA



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Colin Peltit, Commissioner for Children and Young People (CCYP), recently delivered a thought-provoking address entitled “What is in the best interests of children?” at the 2018 ACE WA Walter Neal Oration. At first glance an answer to this question might appear quite

clear. However deeper reflection quickly reveals that there is really no simple answer and that if we were to truly consider what is in the best interest of children a much more complex mix of imperatives would be revealed.

Earlier this year the CCYP released a report entitled “Speaking Out about School and Learning” which outlined the findings of research that comprised evidence collected from focus groups and questionnaires conducted with 1,812 WA school students. Whilst the evidence clearly indicated that schools do meet the needs of the majority of students more often than not, optimal environments in which children and young people thrive depend on a variety of factors. Student agency underpinned the research approach and from consultation with young people there were four factors identified that impact student engagement. These factors include attendance, academic achievement, liking school and having a sense of belonging at school. Hence in responding to Colin’s question, an answer would need to consider each of these four factors as, without question, access to quality educational experiences are clearly in the best interest of students. For anyone with an interest in education, the report from CCYP is recommended reading.

Engaging with early career teachers has been on the agenda of ACEWA for some time and we have been fortunate to have a number of early career teachers on the committee who have continued to provide their perspectives. In early October a Hot Topic entitled “Surviving your first year of teaching” was conducted that was specifically aimed at connecting with beginning teachers. The afternoon event, which was well attended by over 40 participants, began with an address on teacher resilience by Associate Professor Caroline Mansfield. Her advice about ensuring that beginning teachers be ‘kind’ to themselves was well received by the participants. The afternoon then proceeded with the participants

spending around 15 minutes on each of four tables to discuss a different aspect of the ‘first year out’ teacher experience. These tables comprised advice from a teacher in his first year, a mentor teacher, a Principal (Primary) and Deputy Principal (Secondary). The participants heard from a variety of perspectives of the first year of teaching. The opportunity to network following the formal part of the afternoon also enabled the participants to continue their discussion.

Supporting beginning teachers and teachers at various stages of their careers remains a strength of the ACE membership. From a local perspective it is an area in which the WA committee would like to be much more active and we will be pursuing opportunities to remain in contact with the attendees of the Hot Topic and to engage with other beginning teachers in 2019.

VICTORIA



John Quay, ACE Victoria President
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It is fantastic to be able to communicate with you via *Professional Educator*. As ACE is a member driven organisation (as has been the case since its inception), communication across the membership is key to enabling the input of many volunteers.

As you may know, there are currently eight volunteer members of the ACE Victoria Committee. Working with me are Paul Runting as President-Elect (Deputy Principal at Caulfield Grammar School), Helen Schiele as Secretary (Director at Pedagogical Pathways), Pitsa Binnion (Principal at McKinnon Secondary College), Ross Phillips (Senior Dean of Learning Research and Innovation at Strathcona

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As you can see by these events, we aim to support people in all school sectors, working across the profession, at all stages of their careers. If you have suggestions for other events which can support career progression, please let us know. And again, if you might be interested in getting involved, please come along to the next committee meeting mentioned above, or email me on vic@austcolled.com.au

Warm regards

SOUTH AUSTRALIA



Jason Loke MACE, MED, GradCertEd, BED, President ACE SA
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The main business of the ACE Victoria Committee is to plan and conduct initiatives which support members of the education profession in Victoria. In this way we are a conduit that can be approached with ideas for events. Our main focus, however, is on the perennial events we plan and conduct each year. These include:

- The Sylvia Walton Oration (our main Melbourne lecture) conducted this year with our ACE Awards (including the Sir James Darling Medal and the Media Award) <https://www.austcolled.com.au/product/sylvia-walton-ace-victoria-awards-2018/>
- Getting Your First Job (focused on pre-service teachers) <https://www.austcolled.com.au/product/getting-your-first-job-a-conversation-with-principals/>,
- Advancing in the Profession (focused on early career teachers) <https://www.austcolled.com.au/product/advancing-in-the-profession-a-participatory-event-for-early-career-teachers/>
- The Len Falk Lecture (the main Gippsland lecture)
- and this year we have been privileged to be associated with the Unicorn Series of events run through St Margaret’s and Berwick Grammar School

The Australian Curriculum defines lifelong learning as ‘the ongoing, voluntary and self-motivated pursuit of knowledge, understanding and skills development for either personal or professional reasons – enhancing personal development, competitiveness and employability.’¹ As an educator, I cannot argue with the principles set out in this definition. Through learning design, I endeavour to build the skills and dispositions necessary for my students to embrace lifelong learning: critical and creative thinking, problem-solving, collaboration, adaptability, etcetera. The list goes on, depending on how many ‘top 10’ articles you have read on LinkedIn since 2002. Interestingly though, I am quietly optimistic that this is no longer just rhetoric. A systemic change is gearing up to take place in South Australia, at all levels, and if you are in the field of education you had better be ready.

As I write this article my mind drifts to the official opening ceremony of my school’s newly constructed

Imagination Centre, funded through the STEM Works initiative announced in the 2016-2017 South Australian State Budget. My school was one of 139 public schools in South Australia sharing in \$250 million, targeted to build or refurbish STEM facilities. The design brief? Integrated learning areas, breakout spaces, collaborative learning areas and outdoor learning areas to name a few key features for architectural consideration. Learning spaces intentionally designed to facilitate critical and creative thinking, interdisciplinary learning, collaboration, communication and flexibility. A new wave of Capital Works funding, totalling \$692 million, is due to hit schools over the next 4 years with plans for innovative learning environments front and centre in every site.

South Australia is also undertaking a significant review of its Certificate of Education (SACE), targeting Stage 2, to ensure students continue receiving world class learning for an ever-changing world. The review is supported by Professor Martin Westwell, Chief Executive of the SACE Board, who recently delivered a keynote² describing the important role of the general capabilities within the SACE. Professor Westwell emphasised that the world no longer cares how much our students know when they graduate, more important is that they know what to try when they don’t know what to do. Strengthening the development and demonstration of the general capabilities within our curriculum will be an ongoing priority.

The Vice Chancellor and President of Adelaide University, Professor Peter Rathjen, has highlighted the need to modernise the tertiary sector in South Australia to compete in the global tertiary education market. The current standard pathway through University has been in place for over 145 years. The world has changed, the need to learn has changed and the pace of learning has changed. Learning through micro-credentials, a re-imagining of study packages that better match innovative industry demands,

VIEW FROM THE STATES

and an approach to collaboration (ongoing talks of mergers between Adelaide University and the University of South Australia) that increases the flexibility of students' preferred pathways. All whilst empowering students with a broad range of skills that creates a broader range of possible outcomes.

The stage is gradually being set for the effective building blocks of lifelong learning for our students. A strong foundation that values the skills, capabilities and dispositions required to pursue knowledge, understanding and skill development. Merging into a flexible, dynamic and responsive tertiary sector that empowers learners at all stages of their lives for either personal or professional reasons. Whichever way you look at it, South Australia is poised to develop students with what matters most for their uncertain futures.

¹Australian Curriculum Glossary, Accessed September 2018 <https://www.australiancurriculum.edu.au/f-10-curriculum/work-studies/Glossary/?term=lifelong+learning>

²Professor Martin Westwell, General Capabilities: a negotiable non-negotiable, presentation slides available from <http://bit.ly/westwell200718>

QUEENSLAND



Luke Ralph, Australian College of Educators Board Member President, ACE Brisbane Central Region

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The ACE Queensland Regions have delivered a number of successful events over the course of the last quarter including a Meet and Greet Networking Event in Townsville, Building school cultures of parent engagement: Perspectives of principals and parents in conjunction with Fairholme College, the Darling

Downs Annual Book Night Out and the Sam Power Oration and Award in conjunction with Australian Literacy Educators' Association and the English Teachers Association of Queensland.

The dedicated regional and state ACE volunteers continue to develop a range of avenues through which all educators in Queensland can engage and actively participate, not only with the College but with the broader education network. The College network is not confined to education systems, sectors, subjects or levels but works to ensure a more connected education ecosystem operates in every state and territory.

Over the course of the past four years, following the State Government's release of The Queensland Plan: Queenslanders' 30-year-vision, there has been an on-going focus on education and achieving the stated objectives of access to quality education, respect for teachers, high achievement in science, engineering, technology and the arts and practical education that ensure skills for the jobs of the future. Under The Plan, the Queensland Government committed to achieving a number of goals: a flexible and future-focused curriculum, practical-based learning, the most highly valued teachers in Australia, education to be valued as a lifelong experience.

A recent report by the Grattan Institute highlighted that Queensland appears to be making significant inroads in achieving these goals. The report notes that Queensland primary schools are now 'star performers' across Australia in terms of literacy and numeracy. There have been a number of ideas put forward to explain these significant improvements in Queensland from more focus and attention being given to literacy and numeracy at the primary level to building teacher capabilities in grading student work and increases in school autonomy.

Ensuring teachers are valued forms one of the foundation stones upon which the Australian College of

Educators has been built. Elevating the education profession, setting the highest possible standards to ensure educators across all systems, sectors, subjects and levels are afforded the respect, autonomy and given the avenues through which to influence their profession continues to central to the College's vision and mission.

Throughout 2018, ACE Queensland, thanks to our committed volunteer members, have continued to develop and deliver a range of locally based activities targeted at continuing to build the broader education ecosystem that is needed for our profession to continue to advance. ACE Queensland is dedicated to bringing together educators from all areas to foster collegiality and professional learning communities to assist our members throughout their careers.

BOOK REVIEW

Mapping Van Diemen's Land and the Great Beyond - Rare and Beautiful Maps from The Royal Society of Tasmania

Editors: Lynn Davies, Margaret Davies, Warren Boyles Published by The Royal Society of Tasmania, 2018, 138pp

Julie Rimes

In the world of maps, these days there is a movement away from paper versions to various digital formats, but a constant is that users can be assured of their accuracy. Very few parts of the world remain 'undiscovered', and cartologists base their maps on a detailed knowledge of the various features: coastlines, rivers, roads and so on.

But it was not always thus. As the world was being 'discovered' by European explorers, the map-makers of the day produced often beautifully illustrated images of the coastlines and mountain ranges of faraway lands but, in hindsight, their accuracy was often limited, having been based on crude observations by earlier explorers.

The Royal Society of Tasmania is celebrating its 175th anniversary, and has published a wonderful collection of old maps and charts from its extensive collection of rare books and maps. They range from the 16th century to the early 20th century in origin.

There are chapters on southern Van Diemen's Land, the east, north and north-west parts of what is now Tasmania, and on the more remote western part of the island; then come chapters on Van Diemen's Land as a whole, and the continent of Australia; then chapters with many wonderful maps which set the land mass of Australia into global geography; each of these illustrates the gradual improvement in accuracy of the maps, as explorers' and settlers' knowledge of their surroundings grew.

Each chapter is greatly enhanced by commentary by experts, thirteen of them in all, with backgrounds in various branches of science, geography, museum curation and history. Their insights into the contexts of the various maps provide excellent historical overviews; one cannot study the maps and read the commentaries without clearly imagining the dangerous voyages and overland expeditions on which the data for the maps' production were gathered. So the reader is presented not only with developing geographical information but with a good dose of social history as well, concerning the explorers' and settlers' lives, as the Dutch, French and British sought to expand their empires.

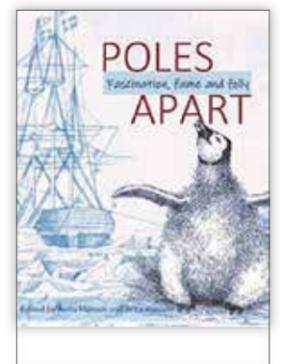
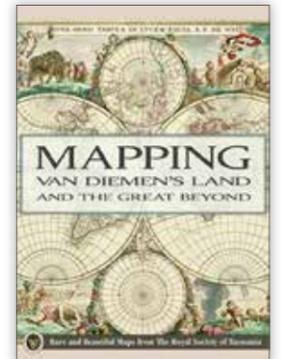
Two chapters particularly intrigued this reviewer. The maps and charts of western Tasmania show the development of knowledge of a region which is still relatively unexplored and undeveloped – certainly sparsely populated. From the first European sighting of the island by Abel Tasman in 1642, to the remarkable overland expedition of Governor John and Jane Franklin in 1842, to the road through to Queenstown built as late as the 1930s, the 'wild and unforgiving coast' comes to life.

Also fascinating are the three maps of the polar region of Canada, with its connection to the search for the north-west passage by Franklin (now Sir John, following his posting to Van Diemen's Land as Governor).

To quote from the book's preface: *The Royal Society has proven as relevant today as it was in the 1840s. For 175 years it has worked to develop and disseminate knowledge about Tasmania.* The Society holds a large collection of old maps and has indeed done a great service to lovers of beautiful books, and to lovers of history and geography, by publishing an attractive sample of them in a skilfully designed book.

A second text to be published in early November 2018 lays out in a series of snapshots, mankind's incredible and persistent battle in firstly taming and secondly understanding our amazing icy wilderness. The last two frontiers on Earth, the Antarctic and the Arctic, are the stuff of heroes, heartache, courage, mystery, misery, endurance and loss. All these and more are captured in the pages of *Poles Apart: Fascination, Fame and Folly*.

Both books are available for purchase online at <https://rst.org.au/>



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