Achieving our goals has become even more challenging. We live in a VUCA world - volatile, uncertain, complex and ambiguous. We need a learning system that ensures an "education worth having" - one that is fit for purpose enabling learning for all; one that is increasingly productive; one that allows all to "learn a living".

Those entering our early learning centres & schools this year, will be graduating in 15 years into a world of greater globalisation, digitisation, complexity and discontinuity. As we educate these young people for the future, the deeper **purpose** of learning will focus on equipping learners to be the authors of their own human evolution (in an environment of AI, robotics & augmented reality), living in sustainable civilisations. Leading school systems are focused on human quality - graduating young people with the knowledge, skills, dispositions and values that ensure that we can, individually and collectively thrive, not just survive.

High performing school systems commit to the fundamental **why** of learning, the **purpose** of learning - the development of the whole person for the whole world - learning that serves intrapersonal growth, interpersonal understanding and honours the interdependency of all living things. This is an education that supports us to become more ethical humans; to be capable complex problem solvers for the common good, in the shared interest - and the imperative to create an inclusive, more equitable, sustainable world.

The current debate about early childhood learning, schooling and the interface between senior secondary and tertiary education is being challenged by the **what**, the **how**, the **who** & the **wher**e of learning.

The **what** of learning in The Fourth Industrial Age involves a shift from a content-based curriculum framework to a competency-based framework where there is a fusion of knowledge, skills, attitudes and values – ultimately directed towards wellbeing at both the individual and societal levels. The move to embrace a wider set of (more ambitious) learning outcomes (rather than viewing excellence within narrow parameters) is progressing rapidly internationally, reflected in the OECD's Education 2030 program of work and IBE UNESCO 's Competency Based Curriculum Framework. There is a new 'work order' emerging and our learning systems need to graduate ALL young people with the requisite skills and capabilities to be able to become productive citizens locally and globally.

The **how** of learning involves designing innovative learning environments, adopting powerful pedagogues, harnessing the power of technology- and forging new approaches to assessment, reporting, certifying and credentialing that reflect new measures of success. The old measures of success are not adequate for a rapidly changing operating environment.

We now face heightened levels of complexity in our personal and family lives & communities, in our economies, and in our local, national & global societies. Therefore, educational leaders need to design personalised learning environments in which a broader set of measures that constitute 'new success' is promoted, recognised and accounted for with multiple pathways for ongoing learning - pathways without differential status and outdated head/hand dichotomies. Obviously, these changes will require significant changes in professional practices, an emphasis on problem and inquiry-based learning, increased use of blended learning, growth (progress on learning continua) based approaches to curriculum, assessment and reporting and therefore fundamental changes to certification, selection and qualifications. This learning transformation agenda will require a learning system where learner agency is genuinely central and where we redefine the roles of the teaching/learning profession.

The **who** and the **where** of learning within the 'schooling sector' and within the 'teaching profession' will experience significant shifts - the merging of formal and informal learning, 24/7 anytime/ anywhere learning and a more differentiated educator workforce. The challenge is to

build professional capacity (more differentiated in the range of roles and responsibilities) through partnerships with stakeholders, while harnessing the agency of young people and enabling technology to mobile the necessary shifts, to spread, accelerate and amplify the necessary changes. This way of working involves a greater commitment to teacher leadership and strategic leadership at all levels of the 'system'. Collaborative professionalism becomes the life blood of the system and all leadership roles are an expression of system leadership.

It can be argued that collaborative professionalism takes the **who** and the **where** of learning into the territory of eco-systems. A learning eco-system is premised on the belief that "learning is everybody's business" - governments, unions, schools, universities, industry, communities, philanthropists, not for profit organisations and social entrepreneurs. A learning eco-system is receptive to new entrants/ new providers in the learning game, responsive to the demand-side of learning and embracing of a wider work force of learning professionals. The orchestration of this eco-system can be shared - schools and universities are candidates. Clearly new forms of governance and leadership are required.

In this new educational environment, the fundamental concern for equity must be addressed. A shift in the role of government from provider and regulator to enabler and broker is called for - in ways that protect and ensure that the "public good" is secured. So, a healthy, complex, adaptive learning eco-system is a work in progress with issues of funding, regulation, accountability and governance being reconceptualized.

Anything less than the collective **shifts** outlined above towards a new paradigm for learning will be inadequate. If we are to meet the purpose of becoming more human, by learning a living with the capacity to be complex problem solvers, locally and globally, we need a learning system that will create the conditions for a learning society where individual and collective well-being are made manifest.

## Biography

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Anthony Mackay is CEO of the Melbourne-based Centre for Strategic Education. The Centre focuses on Educational Leadership, Professional Practice, School Improvement, Curriculum and Assessment, and Innovation in Education at state, national and international levels – encompassing systems and schools and across Government and Independent Sectors.

He was Inaugural Chair Australian Institute for Teaching and School Leadership and Inaugural Deputy Chair of the Australian Curriculum, Assessment and Reporting Authority (AITSL) (ACARA). Tony is Co-Chair of the Global Education Leaders Partnership (GELP), and a Director (Foundation Chair) Innovation Unit Ltd, England. Tony is Expert Advisor to OECD/CERI, and Consultant Advisor to the Asia Society's Global Cities Education Network. Anthony is Deputy Chair of the Education Council (EDUCANZ), New Zealand.

Anthony is Chair of the Advisory Board of the National Institute for School Leadership (NCEE), Washington DC, Senior Advisor to the National Centre on Education and the Economy, and a Member of the International Advisory Board for the Centre on International Benchmarking (NCEE). Tony was a Founding Member of the Council of the National College for School Leadership, England UK. Anthony is Chair, Australian Council for Educational Research (ACER) and Deputy Chancellor, Swinburne University, Melbourne, Australia.