Association of Independent Schools South Australia

Curriculum Leaders Day, 3 March 2023, Seymour College, Adelaide

Keynote: "Why Curriculum Matters – the national context"

I've been asked to talk about changes to the Australian Curriculum and some ideas to keep in mind as go about helping your teachers implement it in their classrooms.

First, however, as a way into that topic, I want to offer some reflections on the importance of having an **educational philosophy** that helps you, individually and collectively, to assess such things as changes to curriculum, or any aspect of the educational enterprise for that matter, including developments in education policy at the state or national level, and what significance or relevance they have for you.

My reflections have a very **personal** starting point. [SLIDES and names deleted for privacy reasons.]

My wife and I have two grandchildren. This is the elder, ████, aged 4 and half.

This is her little brother, ████, aged 13 months.

This is ████ and ████ together.

This is ████ (in her preschool uniform) and ████ and their parents again, our son ████ and his wife ████ (note ████ Collingwood membership lanyard)

This is ████ being inducted into the ways of the Collingwood Football Club

This is ████ with her aunt, our daughter ████.

This is ████ with his uncle, our other son ████.

This is ▮▮▮ and ▮▮▮, with their parents, their uncle and aunt, two of their four their grand-parents, one of their great-grand-mothers, and significantly, their aunt's boyfriend ▮▮

What are these photos saying? They are saying that human **connection** and **community** is the key to personal identity. If a child is born into a loving family, and that family is connected into a range of communities – including schools - and a culture that provides a set of social cues and reference points and norms, their chances of growing into a well-rounded person are very good.

This idea is at the core of the Early Years Learning Framework – Belonging, Being, Becoming.
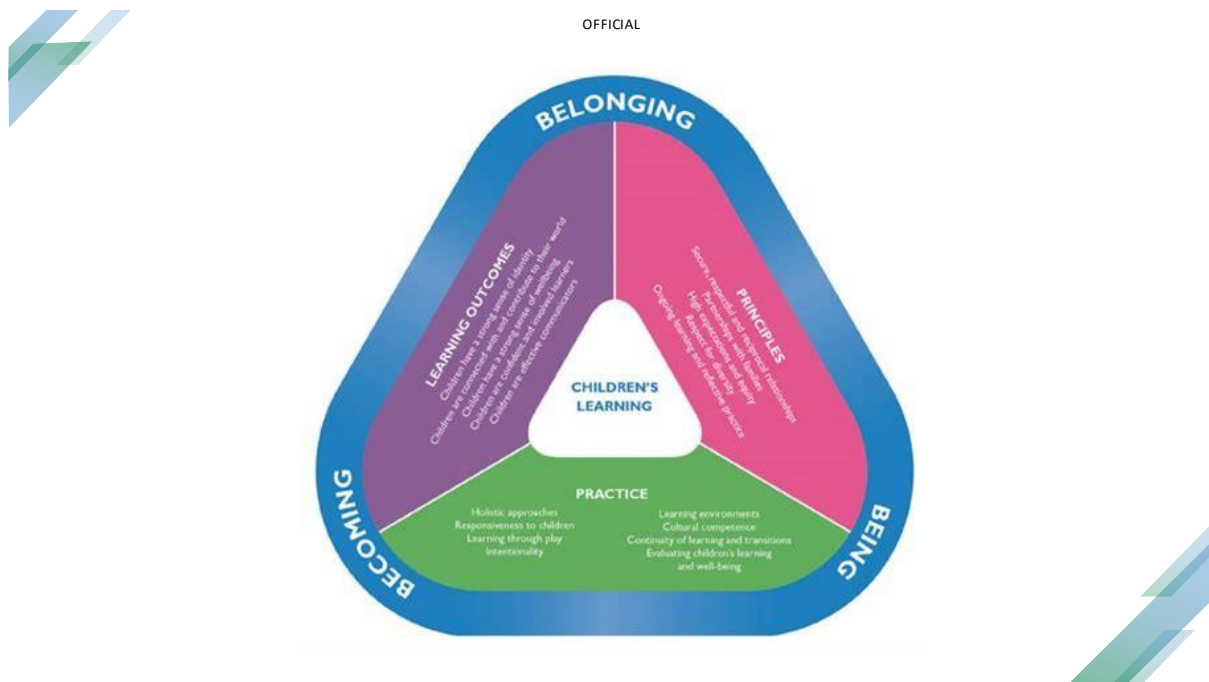
The framework is a good place for all those involved in schooling to start when thinking about the purposes of education. It is a most articulate counter-point to much modern pop-psychology and libertarian ideology, which promotes the idea that our personal identity emerges from nowhere but from within ourselves and the choices we make are nobody's business except our own. But the Early Years Learning Framework tells us that we are all connected to one another, that learning is a communal enterprise, not an

individual one. The world-wide-web of human interconnection was a reality long before the internet came along, and history is not "just one damn thing after another", but it is our-story, just as our present is integral to the story of future generations. My story is part of [   ]'s story and [   ]'s story and their story is part of mine.

So what does that mean for curriculum? And for a national curriculum?

Individually and collectively, you need to have a view about the purpose of education and about the role of the curriculum within that. You need to be able to answer the question, "What do you think you are doing?" The answer you make to those questions is your educational philosophy which will help you think deeply, critically, and creatively about the big issues related to education, to human development in all its emotional, intellectual, existential, social, cultural and spiritual dimensions.

While you wrestle with real and often mundane problems in the classroom, the staff room and the office, your educational philosophy can help you to see how your work contributes to the broader context, to raise your eyes from the road immediately at foot to consider the longer view, the greater good and the ultimate impact of your vocation as teachers and curriculum leaders.

What do you think you are doing?

So we will now do a little exercise to help you reflect on what you think you are doing. Think about the following statements about the purpose of education and ask yourself, which of these is MOST important.

Arrange the following purposes of education in the order that you would rate them from most important to least important in terms of your philosophy of education:

- Giving my students the knowledge and skills they need to find rewarding work in the modern economy
- Helping students develop the capabilities and dispositions they need to contribute to democratic society
- Transmitting important social, cultural and moral values to my students
- Helping my students discover their individual talents and fulfil their potential
- Empowering my students to be agents of social transformation

I realise that forcing you to choose and prioritise in this way is a little unfair, particularly as these approaches are not hermetically sealed off from one another, but overlap. Most of you would say, "Education is about all of these. I'm doing all of them." So the purpose of my question is aimed at getting you to **notice** what emphasis you **habitually** put on these elements of education in terms of how you think and act as teachers. It's aimed at getting you to **pay attention** to the data of your own practice as teachers.

What does your practice say about how you think about education and the curriculum?

Arrange the following purposes of education in the order that you rate them (from most important to least) in terms of your philosophy of education

Mentimeter

1st — Helping my students discover their individual talents and fulfil their potential

2nd — Helping students develop the capabilities and dispositions they need to contribute to democratic society

3rd — Transmitting important social, cultural and moral values to my students

4th — Empowering my students to be agents of social transformation

5th — Giving my students the knowledge and skills they need to find rewarding work in the modern economy

Very interesting outcomes there, and food for thought and future discussion. Now imagine doing the same exercise, except this time imagine that you are not a teacher, but a parent at your school. Would their priorities as parents be the same as yours as educators?

This should raise an interesting question for you: what should you do about any discrepancy between the educational experience you offer and the educational product that your customers are looking for? Not that you should regard parents as customers. I am sure that if I went to your school websites they would all say something along the lines that the school is a community, so parents are – in theory at least - community members, not customers.
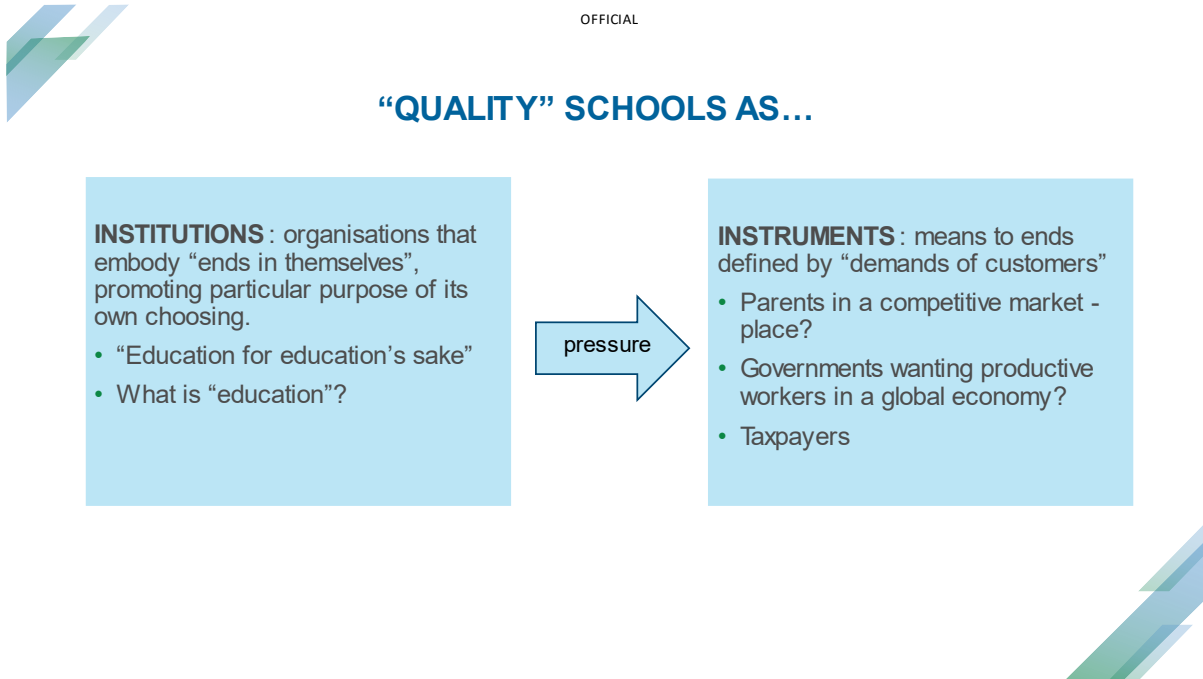
Nevertheless, it is hard to escape the sense that you are operating in a competitive market, and parents may well be asking, are we getting value for money? And this leads us to the question of "quality" in education.

"Quality" may just be one of the most misused and even abused words in education. After all, no one is *against* quality, but opinions about what *counts* as quality differ widely, so that just to say that one "aims for quality" or that schools should be of "high quality" or even of "world-class quality" actually says very little, if it says anything at all. I say this conscious of the fact that ACARA itself refers to its efforts to deliver "world-class curriculum, assessment and reporting".

The vacuity of the word "quality" is visible when delivering what the customer wants becomes the main point of reference for defining quality, and this is particularly problematic in domains such as education, where one could argue that the whole point of the work is to figure out what "customers," may or may not **need**, as opposed to what they **want**.

And it is precisely because of the pressure to give customers – whether they are parents or the broader society - what they **want,**

that schools are increasingly pushed toward becoming **instruments**, that is, means to some ends defined by others, as opposed to **institutions**, that is, organisations that embody **ends in themselves**, education for education's sake.

"QUALITY" SCHOOLS AS…

INSTITUTIONS : organisations that embody "ends in themselves", promoting particular purpose of its own choosing.
- "Education for education's sake"
- What is "education"?

pressure

INSTRUMENTS : means to ends defined by "demands of customers"
- Parents in a competitive market - place?
- Governments wanting productive workers in a global economy?
- Taxpayers

Such an instrumental orientation is also visible in the language of performance, which has the double meaning of both **achievement** on the one hand and **putting on a show, or keeping up appearances** on the other, saying to potential customers "look how good we are". This is, for example, the case when organizations define their quality ambitions in terms of a position in a league table and gear all their efforts toward achieving this position.

We can see, therefore, that in the discourse about quality in education there is a "creeping instrumentalism" that, in the very name of "quality," increasingly transforms educational institutions into instruments as a result of the combined effect of internal dynamics and external pressures. As Gert Biesta has suggested, the question this raises, then, is how schools and other educational institutions can navigate these complex dynamics in order to reclaim their own sense of purpose?

A considerable part of the answer to this question lies in the curriculum.

The curriculum is at the heart of the educational enterprise. But it is not sufficient to say that the curriculum sets out the things we want our children and young people to know and to be able to do. That is too broad. The curriculum answers a more specific question, which identifies a subset of that vast knowledge and capability set: what knowledge and capabilities relating to the world and to themselves do our students need to acquire *that they wouldn't or couldn't come to acquire without their attention being directed to them by their teachers.*

And WHY do we think they need to acquire this knowledge and these capabilities? I will suggest that the curriculum ultimately is about empowering our students with the knowledge and skills necessary to act effectively and ethically in the world.

The new Australian Curriculum

Before going to further discuss ways to think about the purpose of the curriculum and why it matters, I'd like to give a high-level overview of some of the changes that resulted from the review of the Australian Curriculum was approved by Ministers in April last year and has been available to teachers since May last year.

When ACARA put out a draft revised curriculum in 2021 for public consultation, it was the first time in its history that a draft of the Australian curriculum had been open to the public as one document for consultation.

At the time I said: "I expect we will see a stirring of the passions. No doubt some will argue the proposed revisions don't go far enough, while others will say they go too far."

I think we can safely say those predictions have come to pass. The Australian Curriculum Review attracted an enormous amount of

public attention - not just the glaring headlines and multiple front pages and endless Twitter "debate", but significant engagement from the profession and genuine community interest and some reasoned and well written media pieces as well.

I would have been deeply disappointed if the release of the consultation draft **had not** triggered passionate discussion about what we teach our children. That would have been an indication that our society no longer cared about the education our children receive.

The issue of what we teach to the younger generation is always going to be value laden. That's because a national curriculum is an expression of the community's aspirations for its children. It's a self-expression of the community's values.

But we also need to recognise that we live in an increasingly diverse culture. Whether that degree of diversity and difference in world views becomes a problem for us depends on us, and on how we educate our children.

The challenge that we face as a nation - culturally, socially, politically - is, in the words of WB Yeats, ensuring that "the centre holds", namely that we can all continue to support diversity through a common commitment to reasoned and respectful democratic debate as the mechanism for determining the rules which govern our common life and contribute to the common good.

Education is crucial to that, which is why a vibrant and vigorous debate about how the national curriculum shapes the values that we as a country want to promote, is important.

Community consultation is therefore essential. At the end of the public consultation window:

• more than 6000 online surveys were submitted, with the Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority, English and Mathematics receiving the most attention.

• over 900 email submissions were received

• detailed written feedback from all jurisdictions.

There was a lot of support for many aspects of the consultation draft as well as a lot of criticism.

Overall, the feedback from consultation agreed the proposed revisions for each learning area were an improvement on the previous, v8.4; the introductory sections were more helpful, that content had been refined, and that achievement standards and content descriptions had improved in their clarity across all learning areas.

However, a clear message was that there was further work to be done to reduce and refine curriculum content, especially in F-6.

There was also a high level of feedback and public comment in relation to specific aspects that required further attention. These were:

• in English, being clearer about the importance of phonics for learning how to read

• in Mathematics, concern with respect to the year levels at which certain concepts were introduced and the view that some changes could be seen to be advocating particular pedagogical approaches

• in History and in Civics and Citizenship, concern at whether the religious, cultural and historical roots of Australia's success as a prosperous and democratic nation were adequately recognised

• in Health and Physical Education, ensuring there was explicit content for teaching about consent within the context of respectful relationships.

ACARA listened carefully to that feedback to hear what the community and especially what the teaching profession had to say. So in the final version that was approved by Ministers, content was

revised and realigned to ensure it is up-to-date, has a strong evidence base and matches the high standards expected in other high-performing countries.

It is easier and clearer for teachers to use and understand. It has been reduced and refined to improve useability and implementation, especially for primary school teachers. The outcome is a curriculum that sets high standards and will support improvement in Australia's educational outcomes, if planned and taught effectively.

The Australian Curriculum is not a detailed syllabus It is a high-level framework we would designate as the INTENDED CURRICULUM. But as we all know, there can be a divergence between the intended curriculum and the actual knowledge and capabilities that students acquire as a result of their schooling.

For the INTENDED curriculum to be **effectively learned** requires that it be converted into a PLANNED curriculum at the school and classroom level. This is your job, and it necessitates whole-school curriculum planning, along with jointly planned units of work and lesson plans.
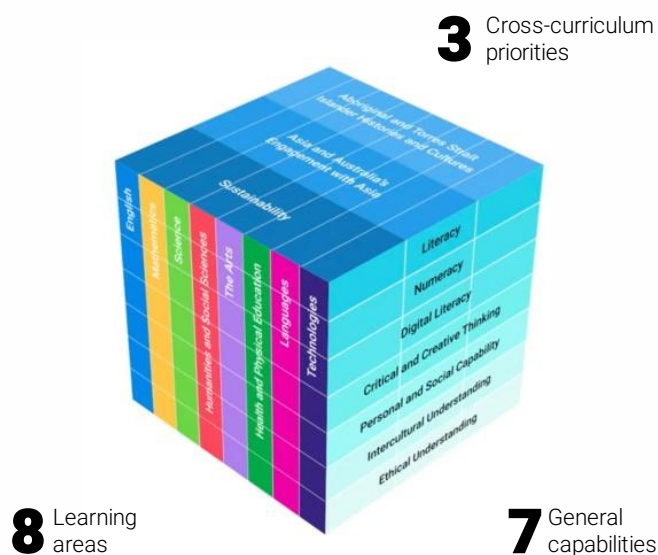
Then the PLANNED curriculum has to be **taught**. Some people might use the word "DELIVERED" instead of taught, but that just reduces teachers to delivery drivers of a kind, taking a product off a shelf and delivering it to a customer according to a standardised template. Teaching is a craft – relational, not transactional -
which **engages** students in their learning.

Ultimately, the curriculum is a tool for the profession, to assist you in the decisions you make about what, when and why to teach particular content knowledge and discipline-specific skills.

The three dimensions and the primacy of the learning areas

Which brings me to the important issue of how to think about the fact that the curriculum has three dimensions: the 8 learning areas, the 3 cross-curriculum priorities, and the seven general capabilities.

We need to be clear that learning areas have primacy of place in the curriculum. The general capabilities and the cross-curriculum priorities are best taught by being integrated appropriately and authentically into the teaching of the learning areas, not as separate "add-ons" that would contribute to an over-crowded curriculum.

Not every cross-curriculum priority and general capability can be addressed in every learning area. Some learning areas are better suited to the development of particular general capabilities than others, and each of the three cross-curriculum priorities find more natural homes in certain learning areas.

More specifically, on the relationship between the learning areas and the general capabilities, we need to avoid perpetuating a false dichotomy between factual knowledge and capabilities such as critical and creative thinking and problem-solving. As the former Chief Scientist, Alan Finkel was fond of saying:

> 'Generic skills only have meaning within specific domains of knowledge.'

> 'What's the use of learning to collaborate if you don't have anything distinctive to contribute?'

You can't engage critically and creatively and collaboratively on a topic if you lack the relevant background knowledge.

This is why, if you hear people talking about the need to emphasise capabilities such as critical and creative thinking over and above factual knowledge, you should raise an eyebrow and interrogate statements closely.

They are often preceded by some version of the following notion: "Students don't need to learn facts now. They can go to Google." Or ChatGPT.

This sets up a false dichotomy between factual knowledge and the ability to think creatively and critically and solve problems.

Imagine a world in which you're recruited as a brain surgeon on the strength of engineering the critical and creative thinking and problem solving skills you demonstrated in your engineering degree which required you to design bridges for a variety of circumstances. You go into the surgery, wash your hands, don your scrubs, and call for your iPad. Then you ask your assistant to google "structure of the brain" so you can find out where the frontal lobe is. Once you've located this, you ask them to google "how to perform a lobotomy". <u>No such world exists.</u>

The claim that students don't need to know things also confuses knowledge with the ability to recall a collection of facts. While knowledge and factual recall overlap, they are not the same thing. Knowledge is not just a list of facts, but is a state of consciousness that entails understanding.

In "How People Learn", the US National Research Council stated that facts are important for thinking and problem-solving.

> "Research on expertise in areas such as chess, history, science and mathematics demonstrates that experts' abilities to think and solve problems depend strongly on a rich body of knowledge about subject matter. However, the research also shows clearly that 'usable knowledge' is not the same as a mere list of disconnected facts. Experts' knowledge is connected and organised around important concepts (eg, Newton's second law of motion); … it supports **understanding** and **transfer** (to other contexts) rather than only the ability to remember."

So while the ability to recall facts from memory is not necessarily evidence of having genuine **understanding**, that ability is a prerequisite for understanding.

A student might, for example, memorise all the key dates of the events leading up the start of World War 1, and the dates of all the key battles, but have no idea how those dates and events are causally connected in such a way as to provide a coherent explanation for that world-changing event. The process of coming to **understand** for themselves the connection between these things, with the assistance of the teacher, is what makes learning exciting. And it's what makes teaching exciting. Seeing the look on the face of the student when they experience that "aha!" moment of insight and understanding.
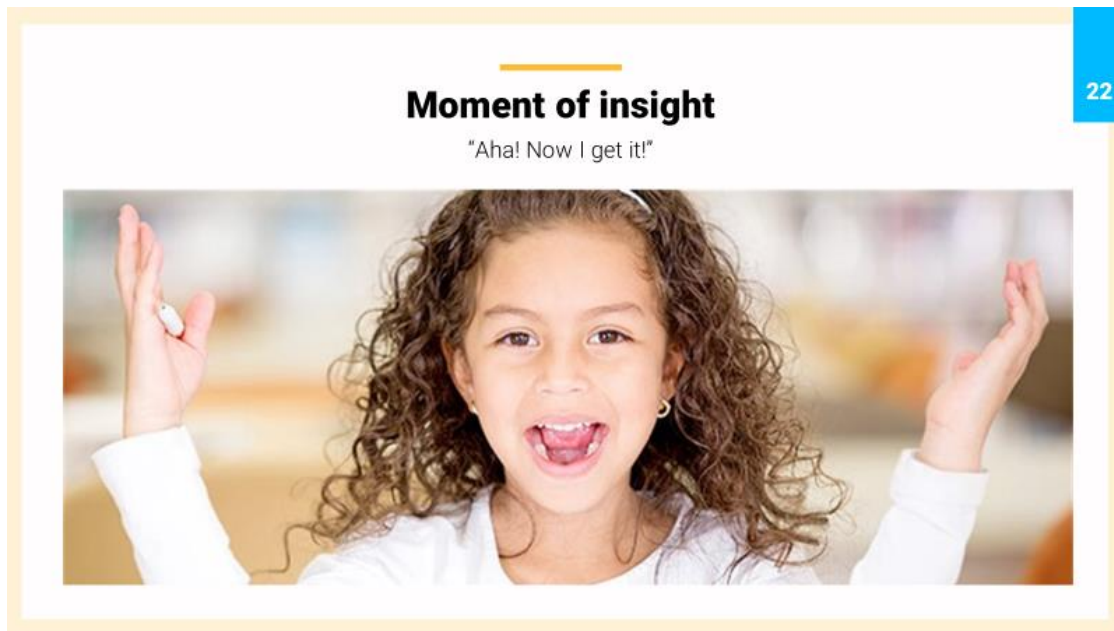
And when we understand a topic, it is easier to recall the facts because they are no longer just random bits of information but are organised into intelligible ideas. Not only do we know where the dots are, but we know why they are there and how to join them.

If we want our young people to be creative and critical thinkers and problem solvers, then it is crucial that factual knowledge about a topic is taught in ways that promote understanding. Depth of understanding is built up over time, which is why, in the revisions to the Australian Curriculum, there has been a focus on creating more space for teachers to teach key concepts and facts in a way that deepens understanding and makes it possible to think critically and creatively about a topic and solve related problems.

But knowledge is not just important because it is necessary for being a useful problem-solver. This just sees knowledge through a limited, utilitarian lens.

Some knowledge is important for membership of a community, not for problem-solving

There are basically two broad schools of thought about the discipline-specific knowledge versus general capabilities duality. Both

affirm, correctly, that knowledge and capabilities go together and can't be taught in isolation from each other.

One approach prioritises knowledge, arguing that capabilities will be learnt along the way as part of effective teaching of that content by teachers who are able to impart their knowledge in ways that engage the students effectively in capability development as well.

The other approach prioritises capabilities, suggesting that facts simply provide the **context** within which the capabilities are learnt. This second approach is theoretically agnostic as to which content should be selected as the factual context for capability development. So, at the extreme, this approach might suggest that, for example in history, studying the changes to animal husbandry techniques in Mongolia could be just as good as studying the causes of World War One when it comes to imparting the skills of analysing primary and secondary sources.

However, I cannot imagine anyone, seriously advocating that some knowledge of World War II, in particular of the Holocaust – its causes and consequences – should not be taught at school in a nation that purports to live by democratic values.

The same goes for the focus in Australian history on the Aboriginal experience of contact with European settlers, and the subsequent 200 years of consequences for their descendants.

In other words, there are some things that just need to be known if we are to be part of a community, as opposed to atomised individuals whose main aim life is to earn money in order to spend money.

These things are essential knowledge for being someone who is **culturally literate**, to borrow a phrase from E.D. Hirsch.

Hirsch gives a wonderful example of this in the Black Panther movement's civil rights manifesto, which makes a case for radical

social change using language that has cultural and historical resonance with broader American society.

As Eric Liu has pointed out, Hirsch argues that the manifesto illustrated two important points:

> First, that the Black Panthers, however anti-establishment, were confidently in command of American history and idiom, comfortable quoting the Declaration of Independence verbatim to make their point, happy to juxtapose language from the Bible with the catch phrases of the Richard Nixon's presidential campaign, and wholly correct in rhetorical usage. It's a classic case of "cultural appropriation" – in a good sense – where the Black Panthers have appropriated the language and symbols of the culture they are trying to change from the inside.

Cultural literacy
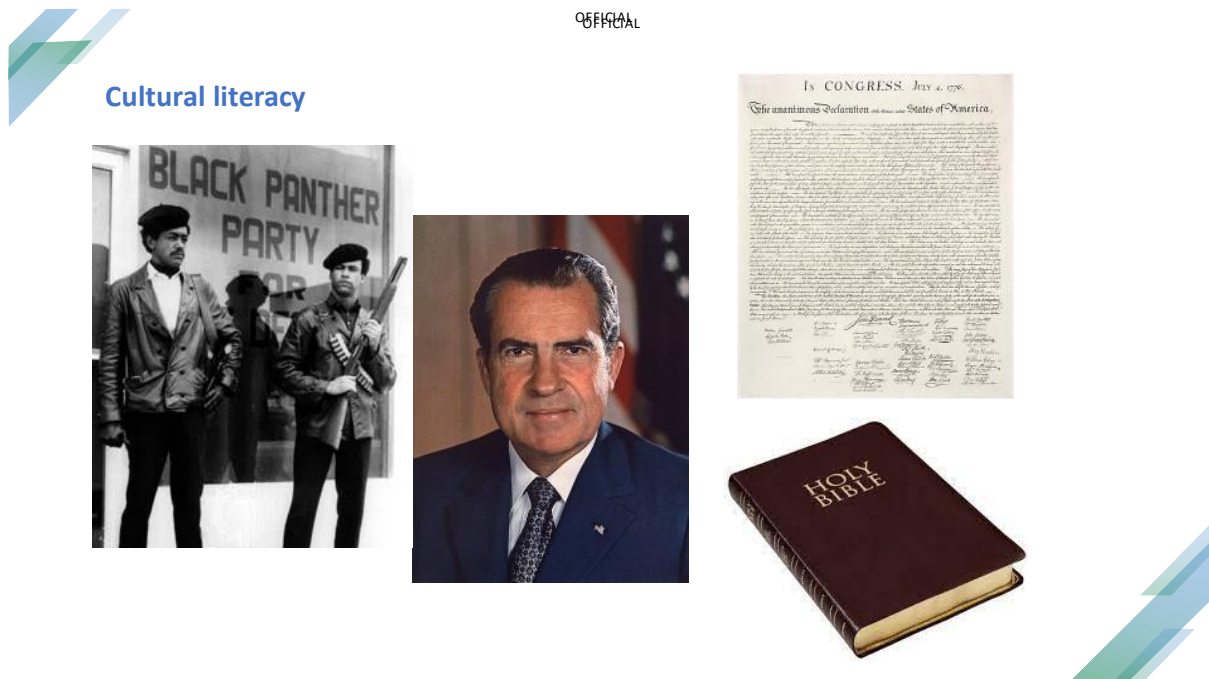
We can see this also in Australia, with the Uluru Statement from the Heart, the opening paragraphs of which read as follows – and note the use of the terms of English law and Western idiom, such as "sovereignty", "time immemorial", "mother nature" and "extinguished":

Our Aboriginal and Torres Strait Islander tribes were the first sovereign Nations of the Australian continent and its adjacent islands, and possessed it under our own laws and customs. This our ancestors did, according to the reckoning of our culture, from the Creation, according to the common law from 'time immemorial', and according to science more than 60,000 years ago.

This sovereignty is a spiritual notion: the ancestral tie between the land, or 'mother nature', and the Aboriginal and Torres Strait Islander peoples who were born therefrom, remain attached thereto, and must one day return thither to be united with our ancestors. This link is the basis of the ownership of the soil, or better, of sovereignty. It has never been ceded or extinguished, and co-exists with the sovereignty of the Crown.

What these examples show is that progressivism is made more powerful when garbed in traditionalism. And this is Hirsch's second point: "To be conservative in the means of communication is the road to effectiveness in modern life, in whatever direction one wishes to be effective."

Thus an education that in the name of progressivism disdains past forms, schema, concepts, figures, and symbols is an education that is in fact anti-progressive and "helps preserve the political and economic status quo."

Likewise, Noel Pearson has argued against the soft bigotry of low expectations which holds that children from disadvantaged communities should not be given access to the kind of esoteric powerful knowledge that expands their horizons and empowers to exercise real agency in the world, as opposed to being the object and victim of other people's agency.

But there is another reason why our national curriculum should be a knowledge-rich curriculum that inducts our young people into a

shared culture. While post-modernism has led to many important insights about power and ideology, its characterisation of important cultural reference points and social norms as mere human constructs in the service of oppression has arguably contributed to undermining the solid ground of reality upon which individuals can base their own solid sense of self and of their own agency in a world that is knowable.

And while this deconstruction has contributed to a kind of liberation and celebration of diversity, it has also arguably contributed a sense of anomie and mental health issues for our young people, who increasingly are trying to build their identity on constantly shifting sands.

Furthermore, they increasingly experience the world created by their parents' generation as devoid of higher purpose beyond self-service.

MEANING AND PURPOSE
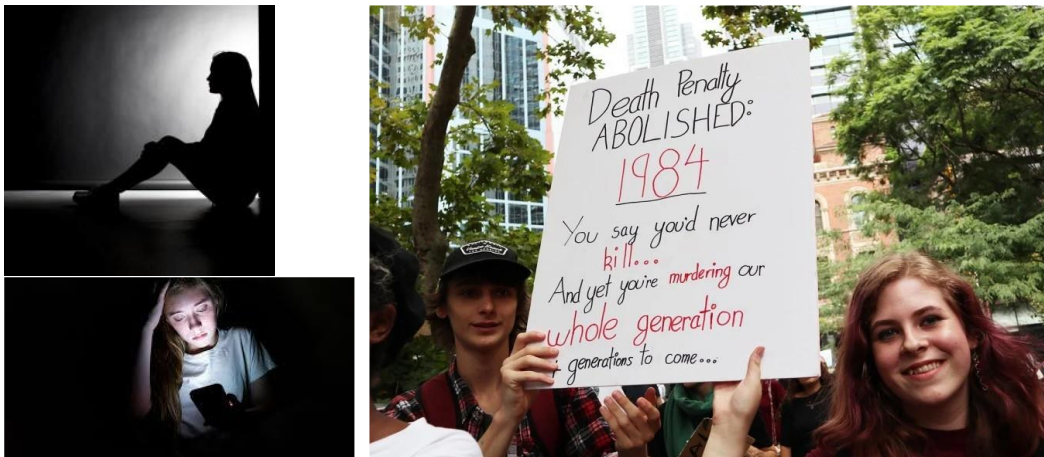
Not wanting to oppress our children, we risk going to the other extreme and leaving them completely to their own devices – literally - instead of helping them to interpret the world and their place within it and to connect into something bigger than themselves. We could interpret their climate change protests as an effort to find a

sense of meaning and purpose in a common cause, as much as it may be an expression of concern about the rising global temperatures.

Likewise we should ask: at what point does the increasing tendency to retreat into tribal enclaves that furnish a ready-made identity cease being a celebration of diversity and start becoming evidence of the breakdown of a shared culture.

Can education, and curriculum in particular, play a role in the mitigation of this risk, and lead to some form of social and cultural renewal.

If so, we need the curriculum to perform as if it were a Michael Leunig Understand-a-scope, enabling students to understand the world in which they live, as the first step to acting responsibly in it.

Are critical and creative thinking skills transferrable across domains?

Now, when it comes to the question of whether skills such as creative and critical thinking and problem solving developed in one discipline can be easily transferred to another discipline, again we

find two schools of thought, one better supported by the evidence than the other.

The evidence appears much stronger for the proposition that these skills are not easily transferrable. As I suggested earlier, just because an expert engineer will be able to solve the problem of how to build a bridge in a particular place with a particular purpose, does not mean she will be able to think creatively and critically through the issues involved in complex brain surgery. The kinds of expertise required to make such decisions are particular to those fields and cannot be easily transferred.

There are a large number of programs that claim to teach critical thinking skills independently of content knowledge, but the evidence suggests that these programs only provide modest benefits in students' ability to apply critical thinking skills outside the domain in which they were developed. Creative and critical thinking and problem-solving in mathematics looks quite different from creative and critical thinking and problem-solving in science, or history or the study of literature and the arts.

However, this does **not** mean that the creative and critical thinking and problem-solving skills of these various domains have **nothing** in common. There is **something** about the capability of creative and critical thinking that **is** cross-disciplinary. What would that be?

Part of the problem we face in reaching agreement on this question is that we lack clarity about what these skills actually entail.

So, let's start with **creativity**, which is often portrayed as breaking away from the traditions of the past or the strictures of convention. Well, yes, and no.

This popular myth was typified in a study last year, widely reported in the press, that supposedly showed that Ernest Hemingway would have failed the NAPLAN writing assessment because NAPLAN

assesses students ability to use the conventions of language, whereas Hemingway bucked convention.

'Hemingway would fail': NAPLAN takes toll on creative writing

Tweet

David de Carvalho

@deCarvalhoDJ

NAPLAN aims to assess basic skills. Great artists know how to use the basic conventions of their art form & when to depart creatively from them. Berg could write his atonal operas b/c he knew his scales. Picasso learnt to draw before painting "Guernica".

But NAPLAN aims to assess basic skills. Great artists know how to use the basic conventions of their art form and when to depart creatively from them. Berg could write his atonal operas because he knew his scales. Picasso learnt to draw traditionally before painting "Guernica".

As Moira T. Carley has stated, creativity is a by-product of three things: 1) the human capacity to ask questions from experience; 2) freedom of consciousness, to accept the element of surprise in discovery; and 3) "vigilant willingness to wait for insight and adequate forms of expression to surface in consciousness."

The capacity to ask questions of experience comes naturally as any parent of a three-year-old testify, but discerning which questions are important and appropriate any given situation is a learned skill.

Capacity to ask questions

Freedom of consciousness

Creativity

Vigilant willingness to wait for insight
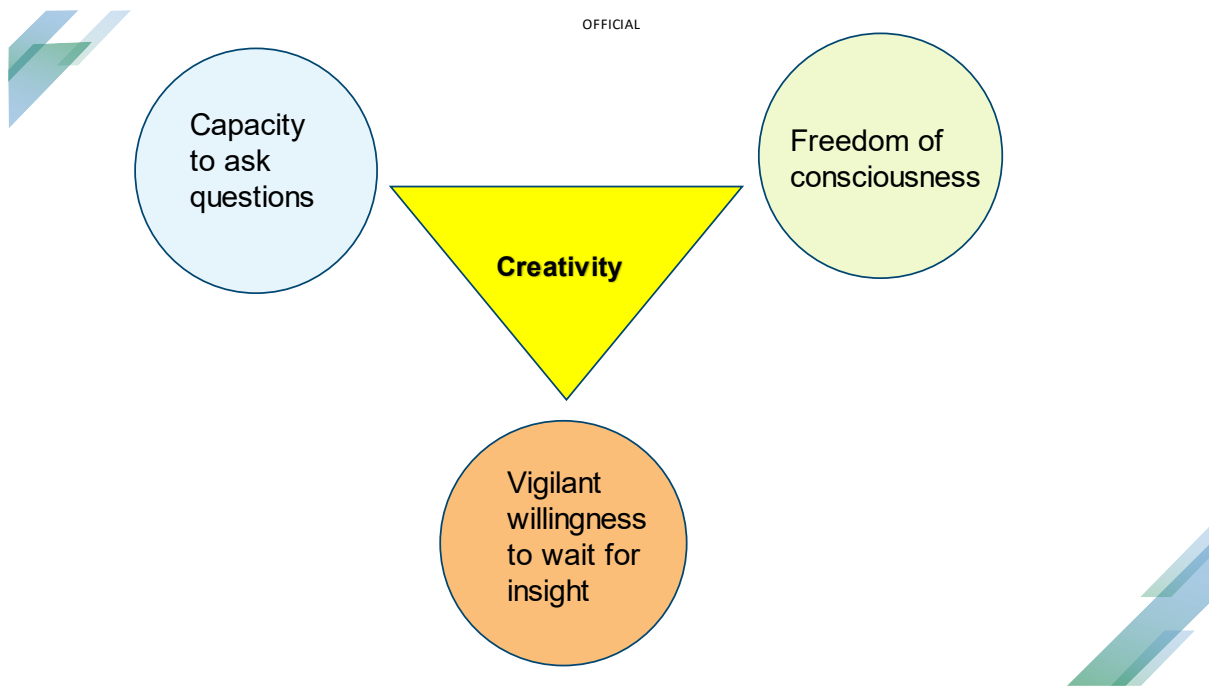
Freedom of consciousness is the work of a lifetime, an open mind, an active imagination and confidence in our ability to expand our horizons by learning something new, and so to change your mind. By consciousness here I mean self-awareness in which being attentive to life is an intentional activity. As such this habit of attention and openness is a skill that can be learned simply by doing it.

We acquire the vigilant willingness, the skill of waiting for answers to emerge, along with the adequate form of expressing those answers, by immersing ourselves in the work of disciplinary communities, people **who have lived with the same questions that interest us**. By observing how certain questions and insights changed their way of understanding and of expressing experience, we can imagine the same thing happening in ourselves.
So to acquire the skills of a specific discipline is to acquire the willingness to wait for creative expressions to emerge from our own questions of experience.

The movement of the human spirit towards creative expression is spontaneous, but not automatic, and usually proceeds at a slow uphill pace, while the necessary disciplinary knowledge and skills are attained.

The core task of education in creativity then, is, somewhat counter-intuitively, to engage students within a given **tradition** of culture, language, thought, structure and thus to open the way for new formulations that will keep the tradition alive as something that continues to grow.

An education system that functions out of this ideal will honour students' questions because questions arise when human intelligence, the Eros of the human spirit, attends to the movement of life as experienced.

Educators who guide students to tune into the movement of life as experienced, to ask their own questions and to articulate in some form what they have understood, provide students with hope, and the opportunity to contribute creatively to the world under construction.

What about **critical** thinking?

Allow me to quote Richard Grallo, Professor of Applied Psychology at the Metropolitan College of New York, from an article he wrote in 2013 entitled "Thinking Carefully about Critical Thinking":

> *In situations where problems need solutions, yet the available thinking is inadequate, the need for critical thinking is heightened. In environments where sloppy thinkers, wishful thinkers, liars and knaves roam about unidentified, some sort of special thinking is required to sort fact from fiction and to distinguish the valuable from the worthless. Critical thinking is a vaccine against "cognitively transmitted diseases" of epidemic vagueness, falsehood, runaway wishes, untestable propositions, and incoherent projects. Yet what exactly is critical thinking? How can it be implemented?*

Critical thinking is related to the ability to come to the point where one can definitively answer "yes" or "no" to questions of fact, value, or action. Questions of fact take the form, "Is this true?" Questions of value take the form, "Is this a good thing?" or "Is this better than that?" Questions of action take the form, "Should I do this?"

Critical thinking = reaching judgement

Critical thinking provides "yes/no" answers to questions about:

- <u>Fact</u>: "Is this true?"

- <u>Value</u>: "Is this good? Is this better than that?"
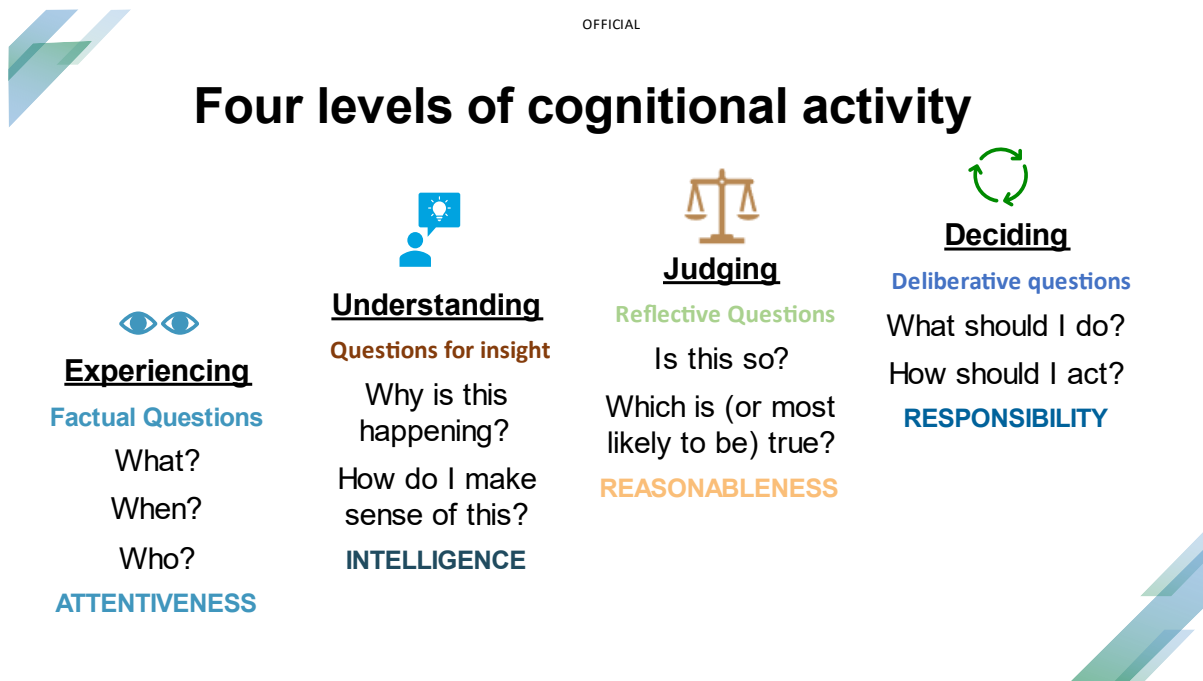
- <u>Action</u>: "Should I do this?"

So, how does one come to the point where one is able to answer such questions in such a way?

Here I would like to introduce you to the thought of the Canadian Jesuit philosopher, Bernard Lonergan, who lived from 1904 to 1984. In 1970, Time Magazine reported that "Lonergan is considered by many intellectuals to be the finest philosophic thinker of the 20th century." He is best known for his monumental 1957 work, Insight, which has the subtitle, "A Study of Human Understanding". It is a work of epistemology, that is, the study of human knowing, and the distinction between justified belief and opinion.

Lonergan's theory about what is meant by knowledge and by knowing, about how it is we can say we know anything at all, can help us identify and address the false dichotomy between knowledge and the general capabilities of critical and creative thinking and problem solving.

In Lonergan's framework, knowledge is gained through a dynamic cognitional process that necessarily involves thinking creatively and critically. For Lonergan, knowing involves three kinds of mental activity or thinking, working together: first, attentively **experiencing** data; then gaining insight or **understanding**, through intelligent inquiry, about possible meanings and interpretations of the experienced data; then reflecting on, and **judging** reasonably about, which of these possible meanings is most likely to be true and real.

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Four levels of cognitional activity

Experiencing

Factual Questions

What?

When?

Who?

ATTENTIVENESS

Understanding

Questions for insight

Why is this happening?

How do I make sense of this?

INTELLIGENCE

Judging

Reflective Questions

Is this so?

Which is (or most likely to be) true?

REASONABLENESS

Deciding

Deliberative questions

What should I do?

How should I act?

RESPONSIBILITY

Finally, there is a question of what to do with that knowledge, how to act responsibly in light of what you know.

This involves us following a set of what Lonergan calls "transcendental imperatives" if we want to come to know reality, and education is about developing in our students the ability and willingness to practice them.

1. Be attentive to the data of experience.
2. Be intelligent in inquiring into that data and coming up with possible understandings.
3. Be reasonable when judging between the competing possibilities.

4. Be responsible when deciding how to act on what you know.

This last point is important, because while it is not strictly part of the dynamic cognitional structure of knowing, all of Lonergan's philosophy is ultimately about action in the world.

Lonergan uses the analogy of a detective to highlight the difference between simply knowing a whole of facts and understanding what they actually mean:

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"In the ideal detective story the reader is given all the clues yet fails to spot the criminal. He may advert to each clue as it arises. He needs no further clues to solve the mystery. Yet he can remain in the dark for the simple reason that reaching the solution is not the mere apprehension of any clue, not the mere memory of all, but a quite distinct activity of organising intelligence that places the full set of clues in a unique explanatory perspective. By insight, then, is meant not any act of attention or advertence or memory, but the supervening act of understanding."

Bernard Lonergan, 1904-1984

Coming up with possible explanations that fit the clues is an act of creative thinking. The collection of facts could mean this, or it could mean that, or it could mean a third thing. What if we arrange the facts this way, or that way, or a third way – what possible solutions does that throw up? Then judging between those possible explanations as to which is the best, most likely to be true, is an act of critical thinking.

So, to summarise, in Lonergan's epistemology, there are three distinct types of activity in acquiring definitive knowledge about anything, that is, in coming to reasonable judgement about matters of fact, so that you can say "Yes, this is the case. This is true." Or "No, that is not true."

The first is attending carefully to the data of experience – this is experiential thinking. The second, which depends on the first, is intelligently asking relevant questions in an effort to gain insight into possible explanations for the experiential data that has been attended to. This involves a form of creative thinking. The third, which depends on the previous two, is exercising reasonable judgement about the likely truth or otherwise of the competing explanations. This is critical thinking.

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Lonergan's Generalisable Empirical Method

1. *Attending* to the data of experience:
   experiential thinking
2. *Inquiring* intelligently to gain insights
   (possible understandings) about that data:
   creative thinking
3. *Judging* reasonably between possibilities:
   **critical** thinking

Coming to know something involves activity in all three types of thinking or three levels of consciousness: experiential, creative, and critical.

So then, coming back to our question, if the attainment of knowledge itself involves creative and critical thinking, can you and should teach the skills of creative and critical thinking explicitly and separately, as if they were transferrable? I would say No, what you can and should do is help students *pay attention to, ask questions about, and critically assess* what they themselves are doing when they learn something, when they come to understand in the normal course of learning something about a particular subject.

This is metacognition, which will help students in coming to know themselves as creative and critical thinkers and problem-solvers. The development of these skills are by-products of students growing in self-understanding as knowers.

METACOGNITION
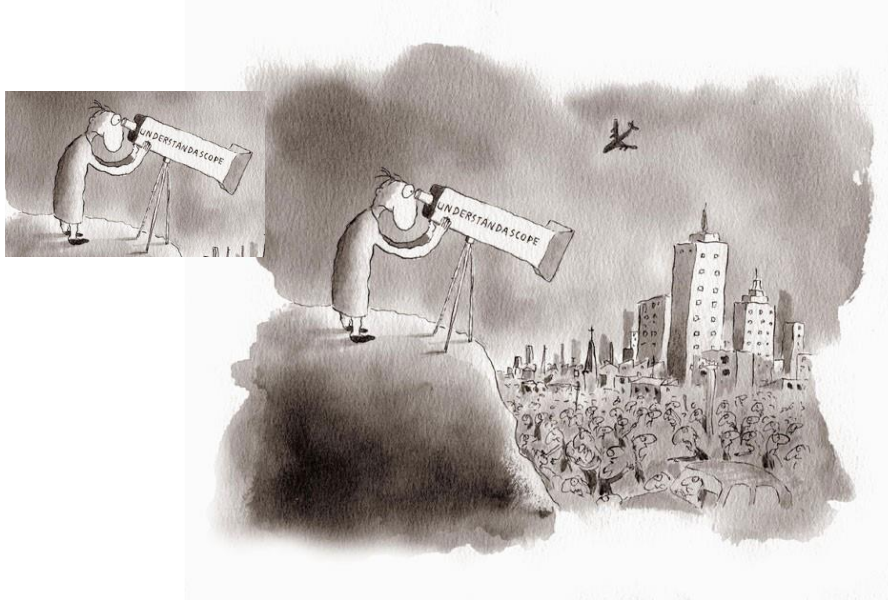
This is why I would suggest that Lonergan's framework allows us to conclude that not only are these important skills learnt in the process of deepening and broadening one's content knowledge in various disciplines, but it also allows students to **know** that they are acquiring these skills. This will happen if teachers call the attention of their students to the cognitional processes by which their knowledge is growing, no matter what the subject or discipline.

Comments on technology

In closing, I'd like to change tack a little and make some observations about how digital technology is transforming our world in ways that are impacting education significantly, as well as some observations about things that never change, or at least shouldn't.

People will remember 2008 as the year of that kicked off the Global Financial Crisis that had such an impact on the world economy for the last 15 years. But arguably even more significant than the GFC, or

Covid – both of which were single, high-profile events, were the events of 2007. What happened in 2007, you ask?

* *The first iPhone is sold*
* *Facebook (in late 2006) opened its platform to anyone with an email address*
* *VMware software company goes public – it's the software which enables any operating system to work on any computer and is the foundation of cloud computing*
* *Hadoop Software is launched, providing a free, public, open-source framework that enabled multiple computers to work as one – the foundation of big data*
* *Google launched YouTube and its own operating system Android*
* *IBM launched Watson, its cognitive computer*
* *Netflix streamed its first video*
* *The mysterious Satoshi Nakamoto launched the Bitcoin phenomenon off the back of blockchain technology*
* *Twitter split off on its own independent platform and went global.*

Each of these events on their own were significant, but collectively they arguably represent the biggest technology inflexion point in history since the invention of the printing press, the steam engine, or the electric light bulb.

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ChatGPT?

New York City school officials block access to controversial artificial intelligence ChatGPT to stop students generating essays

Students 'need to work with' AI

Australian schools are unprepared for how artificial intelligence will change the school system.

The Sydney Morning Herald

Schools right now face a choice - fight the wave of ChatGPT, or surf it

But as disruptive as these technologies have been, arguably the latest developments in artificial intelligence are the ones that will have the most impact, both for better and for worse, on education.

ChatGPT's capabilities are truly mind-blowing, frightening, or exhilarating, depending on your point of view. One thing we can all agree on is that its potential uses and abuses in education are enormous. There are huge ethical questions about how the ChatGPT algorithm is produced and the uses to which it should be put that face the education sector.

So how do we deal with this new disruptive phenomenon? How do we put it to use in the service of education as we understand education's fundamental purpose, according to the educational philosophy we discussed at the start of this session?

So how do we navigate this rapidly changing world and help our students do so as well?

Well, I'm not going to make any concrete suggestions this morning, but in coming up with the necessary responses, **principles** and **values** are going to be important.

To be able to act responsibly in a world that is constantly changing actually requires us, somewhat counter-intuitively, to focus on the things that are unchanging – fundamental human values.

Many of your schools have a Christian ethos. I would suggest Luke 12:48 might be relevant to thinking about principles and values: "To whom much is given, much will be required."

If you have heard that line of wisdom, you know it means we are held responsible for what we have. If we have been blessed with talents, wealth, knowledge, time, and the like, it is expected that we benefit others.

LUKE 12:48

The young men and women who graduate from your schools will be better placed in our society to exercise power and influence. How will they use that? The answer will depend to a great extent on the values that their membership of your school communities will help instil in them: honesty, respect, responsibility, compassion, fairness, moral courage and, most importantly in my view, curiosity, which is the willingness and ability to keep asking questions, about the world, about other people, and about yourself.

Teachers and others responsible for education must fan the flames of wonder, helping students to tune in to the experience the world, to ask their own questions about it, to articulate their insights creatively, to critically assess the truth of those insights, and to act responsibly upon them.

We must help our students understand the world, and then engage with it positively.

From understanding and self -understanding...
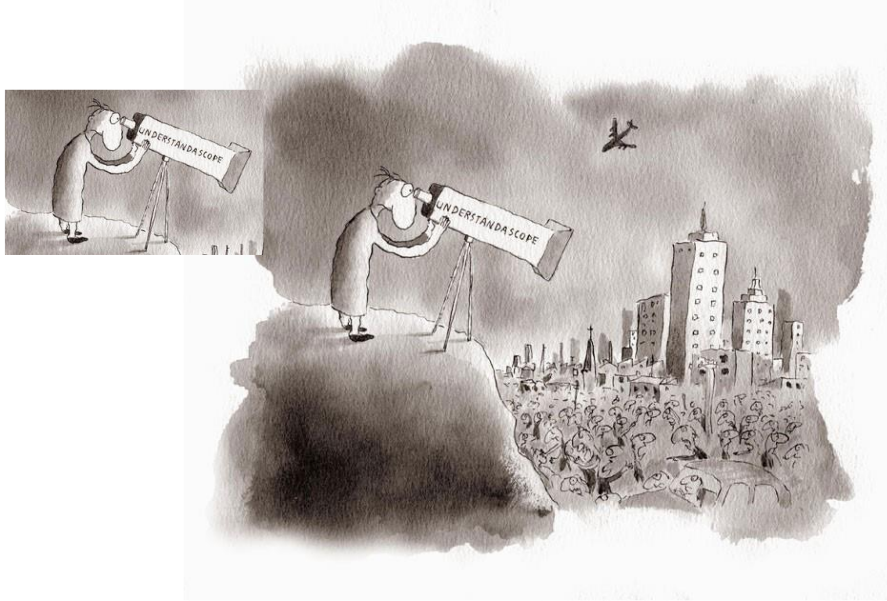
...to responsible action

Your mission, should you choose to accept it.

The curriculum is the key tool for you in the service of education, and the essential nature of education is that it involves a sense of historic continuity and conversation between generations, between teachers and their students, where a learner engages with the curriculum in the process of becoming a well-rounded human person.

So we end where we began, with the human person embedded in community. You are leading and supporting your students on their journey towards becoming a person who recognises themselves to be related to others in virtue of participation in, and enjoyment of: multiple systems of meaning, feeling, imagination, desire, recognition; intellectual pursuits and collective actions, moral and religious beliefs, customs and conventions, principles of conduct and rules that denote various rights and responsibilities.

When you as teachers do these things well, your conversations with your students about knowledge and the world under construction will flourish from the creative and critical thinking of a new generation of lifelong learners who understand that they have minds, and that they can use them responsibly for the common good.

I wish you all the best for the year ahead.

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