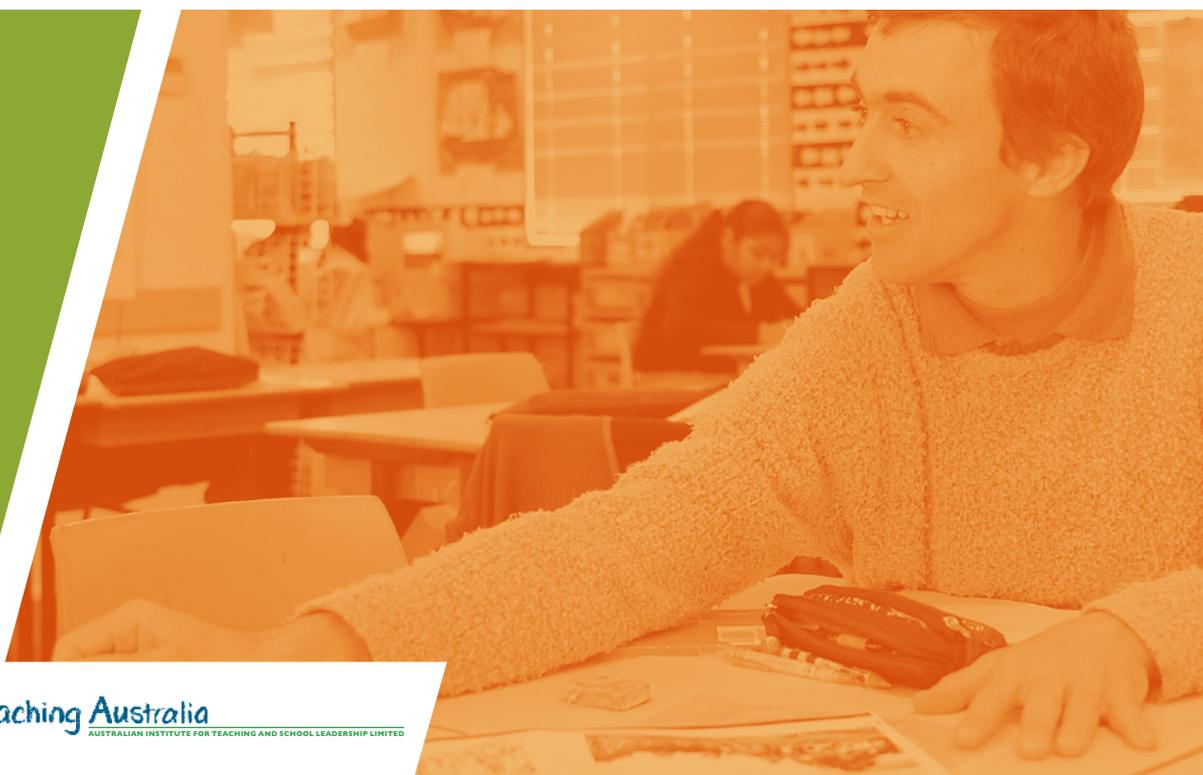


Teaching for uncertain futures

THE OPEN BOOK SCENARIOS
A project exploring
possible futures for teaching





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Teaching for uncertain futures

THE OPEN BOOK SCENARIOS

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Preface

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A brief history of the future is the beguiling title of Oona Strathern's 2007 book which gives an account of how our attitudes towards the future have changed, particularly over the past hundred years. No matter in what field we work now, we must be seriously concerned about the trendlines affecting all aspects of human existence. Observations of the changes that our world is experiencing are provided by the following authors.

The Meadows Team, authors of the *Club of Rome's The Limits to Growth* (1972), found that by 1992 humanity had already overshot some of their predicted sustainability limits, and conclude that because the trends are interlocking 'the collapse will arrive very suddenly, much to everyone's surprise'.

James Lovelock, author of *The Revenge of Gaia* (2007), observes that the earth community is suffering 'the fever brought on by a plague of people' and that 'the great party of the twentieth century, with its extravagant overspending and its war games, is over'.

George Monbiot, author of *Heat: How to stop the planet burning* (2006), claims we may already have started the chain-reaction which could incinerate many life-forms, including the human, and it will need quick and drastic action to head off the possibility.

James Martin in *The Meaning of the 21st Century* (2006) itemises fifteen trends which have to be addressed urgently – like a devastated planet, closing the extreme poverty gaps, controlling the explosion in the world's population, and managing computerised intelligence.

Sir Martin Rees, author of *Our Final Century* (2003), speculates whether the human species will survive beyond the end of this century, largely because of human factors – like technologies getting out of hand; 'multiplier' infections being set off unwittingly especially in the 'congested megacities of the developing world'; disasters triggered by human incompetence; the 'disruptive capabilities' possible from individuals skilled in genetics, bacteriology, and computers; and inventions like the quantum computer.

Ray Kurzweil, author of *The Age of Spiritual Machines, When Computers Exceed Human Intelligence* (1999) predicts that by 2020 we will have computers that exceed the processing power of the human brain, and that technobiology may transcend human capacities beyond what we can imagine.

Clearly, business as usual is not a survival option. More particularly, schools cannot afford to be complacent as they are responsible for educating the next generation of the world's citizens. For them to live happily in the 21st century, they must face issues like the fact that by 2050 developing countries could contain 86.5 per cent of the globe's galloping population explosion; that by then there could be more people living in Asia and Africa than the combined population of the whole world this year. These students will be globally oriented in a way we never conceived of in the 20th century, and what they must learn at school has changed dramatically.

Their lifestyle patterns will need to be radically overhauled too. We would need an area and resources equivalent to almost three planets to support the world population if everyone lived as middle-class Europeans and North Americans do now.

This generation also knows that the global resource inequalities are so gross that, if unaddressed, they will fuel the blind striking-out against perceived privilege. There are now around 22 megacities of more than ten million people whose huge 'megaslums' contain nearly a billion people. And with trends like global warming, any natural disaster anywhere (bushfires, earthquake, floods, droughts, tsunamis) will produce a human disaster simply because there are more people living where these occur.

This is what is in store for the children now in school. They can react negatively or creatively to these things. Teachers know that these children may be the last generation in a position to save the planet and themselves; that their capacity to act cooperatively and internationally are essential qualities to be fostered; and that at the very least, their learning programs must show them what the 21st century world could be like and how to live successfully, robustly, and happily in it.

The question is whether this generation, Generation Y, the students now in school, and their teachers will take appropriate actions. At the end of Lovelock's 2007 book, he almost pleads for the teaching profession to put its skills to work. 'What we need,' he says, is a 'manual for living well and for survival', the quality of its writing such that 'it would serve for pleasure, for devotional reading, as a source of facts, and even as a primary school text.' He gives a neat summary of what its contents should be. We need some agency for synthesis and wisdom that does for the present century what the monasteries did for the Middle Ages, Lovelock says. Will 21st century schools do it? It's a big ask. It's also an exhilarating one! And we have to admit that many of the signs are good.

So at this point in history, the role of teachers is more pivotal than it has ever been. One of the most constructive things we can do, therefore, is to target constructively the quality of teachers. That is why explorations like those contained in this book are of such moment, for teachers have the power to foster that creative and invigorating quality the world needs, namely, hope.



What you do

Step1 Cut the
the wish fish

Step2 Put glue

Step3 Stick di
holes.

Step4 Cut and

Step5 Hang on

Final sentence



Working with some of the brightest, most dedicated and easily the most amazing ‘collection’ of teachers and principals that I have ever met has been a truly unique and inspiring moment in my life. I sincerely believe that we have considered the educational world of 2030 in a way that we would never have considered before and have thus opened a door to understanding and preparation for that world that will significantly aid our successors to guide their students to achieve their very best.

Scenario Builder



Introduction

AS A NEW BODY ESTABLISHED IN 2005 TO advance the standing of the teaching profession in Australia and support the quality of teaching and school leadership, Teaching Australia initiated a scenario building project as an early activity, to explore the future of teaching and school leadership. The purpose was to draw on the knowledge and expertise of practising teachers and principals to reflect on the dimensions of good teaching, to explore possible changes in the teaching environment and to draw out the consequences of these changes for professional practice in schools.

This has been both an exciting and challenging exercise. Since April 2006, 55 committed and insightful teachers and principals from across Australia have come together to construct alternative scenarios and consider the implications of these for their everyday work, both in the present and in the short-term future. Supported by the Neville Freeman Agency and with contributions from their own school communities, interested educationists, leading thinkers and writers, school students, parents and many others in the broader community, the scenario builders brought their creativity and professional

knowledge to illuminate issues that are vital and relevant to teaching in Australia, sharing their views on how to make education more relevant to an ever-changing future and still be engaging and effective for students.

Teaching Australia hopes that the Open Book Scenarios: teaching for uncertain futures project described in this book will provide a platform for school communities, teachers and principals to engage with scenario building at a local level – to step back from the everyday, explore the forces for change in their own school, challenge their own world view, gain a greater understanding of the teaching environment and find ways to influence and shape the professional agenda. Scenario building can be used to initiate conversations around the purposes of education, about what teachers need to do to help students prepare for their future that takes into account the impact of social change on young people and schools.

Taking the longer-term view is not an indulgence but a necessity. It provides the context and understanding for developing practical and more knowledgeable strategies for the present. It is a way of dealing with the complexity of teaching, expanding the lens through which teaching is viewed. It is an opportunity to shift discussion about schooling from a narrow focus on skills and specific areas of knowledge to the broad range of needs for the future, to shift the focus of debate from problems to opportunities and to examine current practice in terms of future needs.



Defining characteristic

Society

Education

Teacher's role

Family life

Role of technology

Immigration

The economy

Politics

The environment

Under the Volcano	A Farewell to Arms	The Grapes of Wrath	The Magic Mountain
The great divide	Community	Fear	Corporatisation
Polarised Intolerant Resentful Pessimistic Personalised values	Harmonious Appreciative Optimistic Tolerant Feminised values	Disintegrating Pessimistic Intolerant Sustainability of kinship groups Survival values	Corporate loyalty Competitive Marginalised underclass Ambivalent Male-dominant values
For haves and have nots Individualism Personal growth Vocational	Centre of community Individualised self-paced learning plans Well balanced	Local fortress Protection Social havens	Corporate ethos Privatised Profit-driven Vocational
Facilitate diversity Agents of integration Safety net for have nots Diminished status	Multi-tasking Social Collaborative Trusted and well respected	Social, pastoral and health care Cross-cultural Model inclusiveness High status due to pastoral care role	Achieving measurable student outcomes Value-adding Highly respected and well rewarded
Cult of youth Small nuclear Family/work balance	Children highly valued Resurgence of extended family	Children provide cheap labour Protective urban/rural tribes	Children are assets Global orientation
Pervasive Social differentiator Focus on innovation and ideas Surveillance	Social integrator	Irrelevant Focused on science for survival	Integral Customised biotechnology
Creates pressure	High Drives innovation Underlines social cohesiveness	Indigenous focus Flood of illegal immigrants Racial tension	Asia focus
Unequal access to wealth Great divide User pays approach	Stable and strong Companies collaborate Traditionally resource based	Global recession Survival economy Crumbling infrastructure Scarcity of jobs and resources	Global wealth Competitive Innovative
Highly centralised	Global alliance	Fragmented	Global corporate alliances No local voice for people
Climate change managed by technology and regulation	Social focus on better futures using clean energy	Harsh, unpredictable climate	Corporate competition for control of resources

The convergence of a whole range of technologies such as informatics, biotechnology, nano-technology, and neuro-technology and cognitive science are fundamentally changing the paradigm in which society is operating. It is up to us to determine, by what we do now, the future impact of these technologies. The first thing we must do is educate people to be able to cope with rapid change.

*Thought Leader
Dr Terry Turney
Director, CSIRO Nanotechnology Centre*

Part 1

Introducing scenario building

DAILY LIVING TOTALLY ABSORBS MOST PEOPLE. Seldom are they able to lift their gaze from their immediate future to think about a longer-term future, how it may differ from today, and to consider what may influence it.

In a static or slow-moving world, this lack of engagement with future possibilities may not matter – individuals and organisations will slowly change as their circumstances evolve. But today's world is not static or slow moving. Change is rapid, widespread, far-reaching and often surprising.

Consider the way the issue of climate change has shifted from being a fringe issue to a mainstream topic, and how the public has embraced the need for debate about the environment and how climatic changes might affect life and living in Australia.

What will happen next? Current hypotheses include pandemics, obesity epidemics, a technological revolution, terrorism, shifting global power, the decline of oil as a primary energy source, changes in family dynamics and economic upturn or downturn. Each of these possibilities has the potential to affect education in Australia, its nature and its content.

POSSIBLE FUTURES

There has already been a shift in the way people, particularly the young, access and consume information. Ten years ago Google was unknown. A few years ago YouTube and MySpace did not exist. 'Blog' is still a new word for many. These innovations, and others like them, are fundamentally

FUTURE IMPERFECT

Engaging with the future is engaging with a slippery customer – future imperfect if you will.

Many things contribute to this imperfection.

The future is *unknowable*. It is not until the future becomes the present that I can say, 'Ah of course, now I know.' The trouble is it's no longer the future and the 'next' future remains as elusive as ever.

The future is *unpredictable*. It cannot be predicted in a foolproof way. The future is also *uncertain*, which means there is the potential for any one of many different futures to come into being.

The crucial skill is not to attempt to pick which of these different futures will actually be the one that happens – to guess the 'right future'. Rather the aim should be to 'imagine into being' and then explore a comprehensive set of plausible futures.

THE 'CONTENT' OF THE FUTURE

Foresight looks at the content of the future in three ways.

Some aspects are *wild cards*: things which are genuinely surprising, such as earthquakes and tsunamis, whatever hindsight might later say.

Others are definite possibilities – the impact of technology on teaching for example – but are *critical uncertainties*: important influences which are foreseeable but whose outcomes cannot be predicted.

And yet others seem bound to happen – *predetermined elements* like the demographics of Australia over the next five years – however nervously such views are shared with others.

THE TROUBLES

So far so good. But the complications of engaging with the future and learning from it are further confounded by a long list of difficult issues and questions. The *uncertainty* of the future is one. Add to this the *contestability* of questions asked about the future and the responses to them; the *complexity* of the hundreds of influences that are shaping future environments; the *dynamics* of power and politics; and the impact of diverse world views.

THE NEW WAY

The troubles are not to be put to one side. What is needed is a process that will accommodate the difficulties and transcend them. That process is broadly described as scenario building.

The 'wild cards', 'critical uncertainties' and 'pre-determined elements' encountered above are all part of the scenario builder's armoury. It is the critical uncertainties that combine to create alternative future scenarios.

When we embark on a scenario building exercise, the ways in which each of us sees the world becomes explicit rather than assumed. The value of scenario building is based on the creation of a shared experience which openly questions the assumptions each of us brings to the table and drives the creation of new world views and collaborative action plans for the future.

Engaging with the future does not take place in the future; it takes place in the present. Having a future focus changes the way we see the present, so much so that we 'reperceive' that present and its strategic requirements.

Learning from the future is exciting and challenging because it changes, forever, the way we engage with the present.

Oliver Freeman



Optimism comes from the human species and its capacity for foresight.

*Thought Leader
Danny Kennedy
Campaign Manager, Greenpeace*



changing the way people connect and interact, both locally and globally. This has significant implications for the future of education, business, health and politics.

Where will these changes lead? Will society be competitive, centralist or community – based? To what extent will change be driven by local, regional or global developments? Any answer is likely to be only speculation, and therein lies the point. We do not know.

Predicting the future is extremely difficult because events and influences occur and link in unexpected ways, and seem to have a unique ability to foil even the best laid plans. However, thinking about future possibilities can generate sensitivity to possible changes and their implications much earlier in the change cycle.

As the future comes towards us at an ever-increasing rate, what is not foreseen will not be seen in time.

SCENARIOS

Scenarios are a tool to help plan for a world in which the future is uncertain. They are part of a strategic planning process. They involve learning to see the future in different ways and using these different futures as a context for deciding what to do today – ‘learning from the future’. Scenarios are not predictions of the future but a tool for linking its uncertainty with decisions that have to be made today. Through imagination and analysis, they broaden the approach to strategy and planning today.

Scenarios allow us to project ourselves into another’s shoes in another time and consider what this new future might mean for our current work.

Scenario building connects us directly to the future and moves strategic conversations away from immediate concerns to discover new questions that require reflection and deeper consideration.

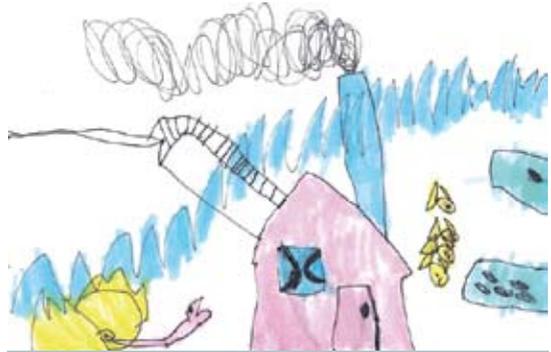
Scenarios are imagined futures. They have their greatest value as a means to explore different strategic responses to complex issues, especially where there is a lack of clarity around the area of interest and a fundamental uncertainty about outcomes. Nowhere is this more relevant than in education and schooling where complexity is created by the wide range of stakeholders, all with a direct interest in the results, by the multiple roles expected of educators, and by the difficulty of defining a clear end state for teaching – what does a well taught person look like?

EDUCATION SCENARIOS

Teachers through their work with the next generation, are directly involved in shaping the future in Australia. They are preparing tomorrow's citizens, its captains of industry, academics, politicians, artisans, sportspeople, labourers, public servants – plus its teachers, lawyers, doctors and engineers.

Noted US futurist and educational thinker, Jay Ogilvy, likened a divergent set of future education scenarios to a 'very broad tent' under which people with widely differing views and passions can talk civilly together about educating their children. Scenarios are always divergent, allowing new and often radical ideas into the conversation with the confidence that these are stories, not policies, and they are future possible worlds, not promises or concrete predictions.

Having access to a plausible set of scenarios can serve to enrich conversations between teachers and principals and the school community. They promote open-minded conversations about change. They can shift discussion away from arguments about what teachers are against to what teachers are for, what they need to do to help students prepare for their future. They respond to two questions: how might the world develop over a period of time? And how can decisions taken now be informed by a longer-term view?



A Day in the Life of Dylan 2030

I live under the water. I slide down a big pole to get into my house and I climb up a big ladder to get out. I wear a special swimming suit with water proof shoes and gloves.

There is a big whale that lives outside my house and it eats the fish. There's a moray eel too that lives in a hole in a rock. Our windows don't open so the water stays out. I go swimming and I catch fish and stuff like prawns to eat. I have an oven that cooks underneath and on top at the same time. Sometimes we go out to a restaurant to get drinks because we don't have water to drink under the water. We go in our red car and it parks on the land up above us.

Dylan Boyd
5 years

Scenarios are also a means for influencing the future. They can help identify actions which reduce threats and maximise opportunities for achieving better futures for parents, students, teachers and local communities.

Part 2

The Open Book Scenarios

TEACHING IS THE LARGEST PROFESSION IN Australia. There are about 250,000 teachers in around 10,000 schools in the various states and territories, teaching different age levels in different education systems. With such vast numbers and such a spread, there is no ready way to bring the profession as a whole together to discuss its professional roles and responsibilities into the future.

The Open Book Scenarios project provided an opportunity for a few teachers and principals from across Australia to come together in this way. The objective was to ‘engage the teaching profession in exploration of possible futures and their implications for quality teaching and school leadership’.

At the heart of the Open Book Scenarios project was a team of 55 practising teachers and principals, selected for their interest in and passion about teaching and about the future. They came from government and non-government schools, from all states and territories and from pre-school through to senior secondary schooling.

To expand engagement with the project, many of the scenario builders were able to establish a local hub, a group of 10 to 15 teachers, who worked with them through the process as a sounding board for ideas and issues. This ‘controlled amplification’ process, which operated both actually and virtually, added around 1750 teachers and principals to the project.

The scenario builders were involved in a process extending over more than a year that involved

data-gathering, examining the influences and issues that might be important in the future both for teaching and for the wider world, crafting alternative future worlds and exploring the implications of these worlds for their professional practice, both in the future and today.

Early in the process, framing questions designed to shape the exploration of the future were agreed. These were:

What will the Australian teaching profession have to do to be successful in the environments in which it will have to operate in 2030?

The perspective was deliberately that of the teaching profession itself, with a focus on professional practice rather than schooling or education more broadly.

To assist the scenario builders to explore these questions, inputs and contributions were gathered from a range of sources – from future thinkers and opinion leaders in fields as various as philosophy and the environment and science; from research, interviews and focus group workshops in different locations; from consultation with stakeholders in teaching, school leadership, government, teacher education, education policy and administration, business, the community, students and families; and from students themselves.

Students' views were sought through face to face discussions, and also through 'A day in my life in



What are the implications of these challenges for school leadership?

2030', an activity designed to capture the ideas of young people about what life might be like in the year 2030. Students of all ages submitted online creative pieces imagining themselves, at their current age, in a schooling environment in 2030, and describing a day in their school life. For students, climate change and technology were centre stage, shaping ways of living, getting around and interacting with others. Robots take on domestic chores, including the roles of parents, teleportation replaces commuting and microchips mean the end of homework and the need to study. Technology mostly substitutes for teachers, although in emergencies – when the computerised teachers crash – students face the challenge of "listening to a human voice talk and teach ... She projected the notes on the wall and made us write them out by hand! My hand does not know how to use a pen, let alone write a ton of notes. This is child labour!"



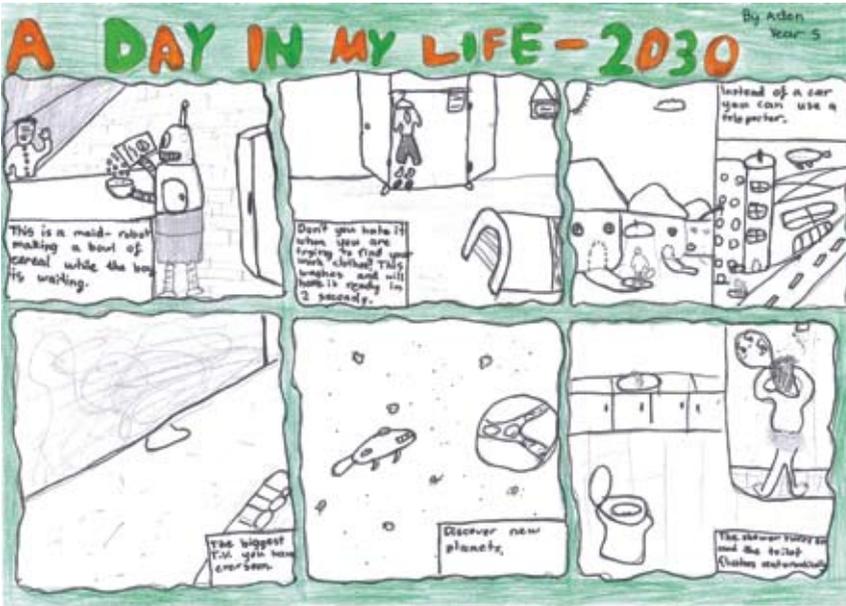
I felt totally challenged at all times. We were required to absorb a great deal of information, assimilate that with our existing values and beliefs and then use this data to predict influences and changes in a variety of contexts. Then just when you thought you had it the context was changed or extended requiring new challenges to thinking. It was great!!

Scenario Builder



Thinking outside of my comfort zone. Realising that the global world has a large impact on what I do in my everyday life, as well as what happens daily has a large impact on the future.

Scenario Builder



Aden Blanch
11 years

THE PROCESS OF SCENARIO BUILDING

After an initial workshop in April 2006 to introduce the scenario builders to each other and the scenario building process, the scenarios were built during three workshops.

In workshop 1, in August 2006, the scenario builders explored and refined the framing questions and created a database of issues and influences. They identified hundreds of dimensions of the environment, from nature, society, politics, the economy, culture and technology that had the potential to influence the context in which the teaching profession operates. Global warming and climate change were seen as critical influences on both the curriculum and the physical environment of schools. Changes in family structure and social relationships as well as trends in immigration had the capacity to change – usually stretch – the expectations of schools. The possibility of increased political intervention in schooling was seen as a concern. National economic well-being was seen as a significant force shaping Australia, with the possibility of growing disparities in wealth having a divisive effect. Multiculturalism would continue to be an important influence and technology had the potential to revolutionise, even further, education delivery and ways of learning.

The central task of workshop 2, in October 2006, was to generate a small number of coherent but differentiated

‘indicative scenarios’, representing four different ‘worlds’ in which the teaching profession may have to operate by 2030. This involved the reduction of the many influences identified in the first workshop down to a more manageable number of influences with the strongest impact and led to the generation of the four scenario worlds described in Section 3. These ranged from the bleak future defined by fear, economic difficulty, environmental degradation and social marginalisation of *The Grapes of Wrath*, where schools would provide protection from society and teachers’ main role would be to provide pastoral care, to the more optimistic future of *A Farewell to Arms*, characterised by a strong sense of community, economic stability and valuing of children, where schools are well respected community institutions and teachers held in high esteem with significant professional autonomy.

Workshop 3, in March 2007, moved the process from alternative future scenarios to strategies for the teaching profession.

For those who want to explore further the scenario building process, including its intellectual underpinnings, and the material created and gathered for the Open Book Scenarios project, including research, interviews, presentations and the outcomes of forums and discussions, this is accessible online at www.teachingaustralia.edu.au

For Australia to be a leader in educational thinking, practice and resourcing, we need people who have the capacity to think globally. It is all too easy to remain focused on our own issues, ignoring the 'outside' factors. But, we do this at our peril and I believe the scenario building project has demonstrated to all of us involved just how important it is to see the global factors and how these connect.

Scenario Builder





Part 3

Four scenario worlds

A Day in the Life of Catherine 2030

There is a flag on my house. My house is very colourful and very, very tall. It has buttons on it. I use a ladder to reach the buttons. One opens up the door, one makes the flag move and one makes the shelter go up and down. There is a machine next door that when you open the door it washes you up.

When you get in my car it takes you for a drive. You tell it where to go. It goes by itself. It stops by itself. It has eyes at the front so it can see.

Catherine Lerch
4 years

THE IDEA BEHIND SCENARIO BUILDING IS TO imagine alternative future worlds which are plausible, internally logical and robust and which are distinctively different from each other.

The scenario builders in the Open Book Scenarios project had the opportunity to explore the many elements of the environment – globally, nationally and locally – that impinge on the work of the teaching profession. They were stimulated, stretched and challenged by their experience of learning from the future. Through this process they developed four scenario worlds for 2030:

Scenario 1 **Under the Volcano**

Scenario 2 **A Farewell to Arms**

Scenario 3 **The Grapes of Wrath**

Scenario 4 **The Magic Mountain**

These scenario worlds are quite distinct and are described below through the eyes of four fictional individuals.

Further ‘key aspects of life’ in each of the four 2030 scenario worlds have also been described and are located in Appendix 1. A description of the four scenario worlds follows.

SYNOPSIS OF SCENARIO 1

Under the Volcano

This is a world where unequal access to wealth is creating a society that is splitting in two. The fortunate few enjoy easy access to everything. There is a world of excellence and privilege, with good schools, well-funded hospitals and household managers employed to help with everything from washing clothes to mowing the lawn.

The other half couldn't be more different. There is a world where everything seems to be in short supply, except queues. The underclass is increasingly unwilling to accept the status quo and dissent is in the air.

Interestingly, however, both groups share a few similar beliefs, especially about the primacy of the self and the importance of education for preparing young people for work. There is a significant skills shortage, although technology replaces people in many areas of industry. Technology is pervasive and drives all facets of life.

Society values youth, innovation and ideas. Families come in many different guises but all are heavily into parenting. Family/work balance and happiness are national political issues.

Some signals of change in this direction could be:

Schools being privately owned and floated on the stock market

Neighbourhood unrest and the increased use of security forces

Widespread use of tracking devices for goods, services and children

Rise in use of drugs and medication to enhance performance

Consumerism and free choice driving innovation

Scenario 1

LOOKING BACK FROM 2030 UNDER THE VOLCANO

Mary Scott is a 40-year old single parent from regional NSW who lives in Young. She is reflecting on how things have changed since she left school in 2007.

IN AN IDEAL WORLD THERE WOULDN'T BE much difference between schooling for the well off and the also rans, but we don't live in an ideal world do we? I live with my two kids Millie, 14, and Jamie, 6, near what I guess you might call a classic country town.

We've had our ups and downs here, especially the dry decade after I left school that put most of the local cherry farmers out of business. We all pulled through but there's not much well-paid work left around here anymore. The few families that could packed their bags and headed for Sydney. It's another world really. We're stuck out here with next to nothing to do while the people with the right kind of skills (or the right kind of kids) pick where they want to live and who they want to work for. The sort of money I hear they earn makes my head spin although from what I hear money still doesn't buy happiness.

Thirty years ago I remember Australia being a fairly egalitarian society at least in terms of a fair go and access to good schooling. These days there's a great dividing range and it's great only for the lucky few. Access to education is now totally influenced by money. Education in turn influences jobs, which then influence how much money that you have to spend on education.

In other words, the fair go has gone. Business and media are now tightly controlled by a handful of national and international companies which tend to recruit employees from a very select range of schools and universities. But it's not just education and jobs that have become polarised. Politics has become hugely confrontational once again with one party furiously defending the individual, the free market and

globalisation while the other clings unsuccessfully to ideas like social justice, community and the Australian flag.

My main worry used to be climate change. What sort of world, if any, would my kids inherit? However, technology (plus a bit of tough legislation and commonsense) seems to have sorted out most of the man-made mess, which means that my current concern is education, especially the ways schools can promote a social conscience and provide a safety net for families.

The crime rate around the region has really worsened over the past thirty years, especially with poor kids stealing from the rich hobby farms that are empty for most of the week. There's a problem in the local schools with obesity, drugs and Internet addiction, all of which are of course treatable if you have the means. For example, there's a vaccination now available to immunise kids against binge drinking but it costs more than most people around here have to spend on food for the entire year.

I'm a really strong supporter of local schools, especially the way that these schools have integrated themselves into the local community. When we had the big drought, the schools played a vital role in helping local families survive and we've never forgotten that. We look after them and they look after us. Parents and grandparents help out at the local schools and businesses in the area do their bit too.

There's talk of a developer building a boarding school for privileged city kids. The parents of these kids are so busy earning megabucks and living in skyscrapers that they prefer to farm their kids out to give them a taste of the healthy country life. They're thinking of building the school quite close to here but I promise you it won't work. First of all, no local teacher that I know of would work in such a place because his or her worldview is so different. Equally, any school teacher from the city that moved here would find it very

difficult to fit in with our tight local community unless they shared our culture and beliefs – which would mean they'd never work at the school.

I've thought about home schooling, which is very popular, especially with the immigrants, but to be honest, I think it's important to physically support the community. I also worry a bit about my kids spending too long in front of a computer screen as it is.

My kids are great, of course, and my ex shares this belief (although he won't share much else). However, Millie and Jamie do seem rather disengaged. I'm not sure how resilient they really are. Their level of selfishness and narcissism scares me. They won't listen either. I keep telling them how important education is, especially if they want to get a job somewhere else, but they seem totally absorbed by their own virtual worlds. Mentally, I think they are somewhere else already.

polarised society
tension

youth / innovation / ideas valued

generational shift
individualism

drugs enhance performance

family / work balance

pervasive technology

**ready to
explode**

the great divide

**schools for
haves and
have nots**

SYNOPSIS OF SCENARIO 2

A Farewell to Arms

In this world Australia has become more open both in terms of tolerance of others and also in terms of how the family and the local community are involved in decision-making in politics and business. The nation is buzzing with fresh thinking and new ideas.

Family, community and children are held in high esteem. Schools are well respected institutions and contribute to Australia's leadership in science and innovation. The value of technology is acknowledged but not overrated – physical connectedness is as important as virtual connectedness.

The economy is strong, with services and small business flourishing. Immigration is driving experimentation in business, the arts and education and underlines the sense of harmony and social cohesiveness.

Some signals of change in this direction could be:

Greater presence of women in public life

Focus on green technology in response to drought, floods, heat and resource shortages

Advances in technologies with strong social benefits

The growth of well-being and happiness as a political issue

Greater local responsibility for schooling

Scenario 2

LOOKING BACK FROM 2030 A FAREWELL TO ARMS

Anna Berich lives in Perth with her husband and three kids.

MY YOUNGEST DAUGHTER, GEORGIA, RECENTLY asked me to compare growing up around Perth thirty years ago to now. The question was part of a school project and I must admit that it rather floored me because you rarely get the chance to sit back and think about these things.

I guess the main difference was that back then society was more focused on the individual. The word 'community' conjured up images of pensioners sitting in broken-down church halls drinking tea and playing bingo. These days community drives almost everything and schools are right at the heart of it. Thirty years ago, schools weren't open at night and you could hardly buy anything from the parent-teacher association shop. These days, I pick up most of my fair trade local fruit and vegetables from the school shop when I drop Anna off in the mornings and we use the school hall for everything from local Water Action Group meetings to technology boot camps for the grandparents.

I suppose the really big difference though is the fact that then Western Australia was like the Wild West – a bit of a boy town perched between the desert and the sea. Men ran most of the resource companies and farms and women were few and far between in both business and politics. These days we are more or less in line with the global shift towards female values and things like empathy, intuition and emotional intelligence are in great demand locally and internationally. There are more women in positions of power worldwide, which has softened things a bit, especially in areas like defence and foreign affairs. Conversely, there are more men in education, especially at the junior level, which gives the boys great role models.

tolerant
optimistic

community engagement

socially cohesive

family life valued

green technology

economy less important than family values

gender balance

innovation

sustainability

schools
respected

Another positive spin off from the growing number of women in senior management positions throughout Australia is how the family has become so central to everyday life. It is probably also a delayed reaction to the stress and burnout caused by technology and globalisation. Whatever the cause I think we are much better off in 2030 compared with 2007. There is more of a sense of perspective and balance. There is more time to think and more opportunity to think about the impact of our decisions on other people. There is also more regulation, especially surrounding the sanctity of family life, but this is generally a good thing because the community creates these laws in conjunction with local politicians, local business and the media.

School wise (which I guess is the comparison my daughter was really after) there have been some dramatic changes too. Three decades ago, technologies like the geospatial web, nanotechnology, organic computers and grid computing hardly existed and robots and other emotionally aware machines were still uncommon. These days technology is extremely sophisticated and it's everywhere. For example, most children wear smart clothes that contain GPS location finders and woven solar cells to charge up devices like mobile phones (an Australian invention from Western Australia incidentally). All Australian schools, especially those in remote rural areas, are fully wired up and because technology is now so cheap, every student has an extraordinary number of choices when it comes to personalised learning plans, distance learning and virtual school access day and night. Indeed, a significant number of students never set foot inside formal school buildings at all, preferring instead to interact with virtual learning engineers from their bedrooms, coffee shops and even their cars.

But it's not just in the area of information technology and communications that things have changed. Back in 2007 schools were consumers of energy and resources, which meant they were at the mercy of fluctuating prices, supply disruption and competition for key resources like water. These days

we make our own solar and wind power and collect and recycle our own water, sometimes even selling some of it back to the state grid at a profit – which makes business studies lessons a bit more hands on I guess! Last year our public school even won a national competition for the most water collected in a single year, beating competition from schools across Australia and the Asia-Pacific region. It's amazing how long it took to dawn on us that collecting water locally is so much more efficient than dams or desalination.

The bad news? Not much that I can think of really. We haven't experienced the economic miracle that has taken place in countries like India and China but we've done pretty well as a feeder of resources and technology into these regions. Equally, climate change bites pretty hard every so often, especially in this state where it's either too hot or too dry, but we haven't suffered as much as some areas like Bangladesh or the Mekong Delta region in Vietnam.

Immigration is still an issue, but Perth is much more multicultural than it used to be. Some days you can walk the entire length of Whipple Street and not hear a word of English spoken. From my perspective this influx has made Perth feel much less remote from the rest of the world. It's a real joy to see how differing perspectives and experiences have resulted in an explosion of new ideas like the Fremantle International Film Festival and the John Lennon International Peace Studies Institute.

In short, I think that kids in Australia are among the most fortunate anywhere in the world. First there's the space and values like mateship and fair go, which we've always had I guess, but there's also the fact that our children are now really valued.

I don't know what it will be like in another 30 years but if the long economic boom continues and we can keep our community spirit and gender-balanced thinking alive, the future will be a pretty good place to live.

SYNOPSIS OF SCENARIO 3

The Grapes of Wrath

This world is not a pleasant place. Pessimism is endemic. Fear, uncertainty and anxiety are the dominant themes and many of the things that used to be taken for granted are now in short supply or have disappeared altogether. Social justice is a rare concern, the long economic boom has ended and natural resources have significantly diminished.

The environment is harsh and unforgiving and many areas of Australia have become uninhabitable. Those who can move to gated communities in the city. The climate is increasingly severe and unpredictable. Families and local communities are focused on survival while at the national level, the economy is failing, jobs are scarce, public infrastructure is crumbling and society is tearing itself apart.

Some signals of change in this direction could be:

Climate change increasingly unpredictable

Sharp population shifts within and to Australia leading to decline of rural communities and increased racial tension

Economic downturn from global recession

Increase in health pandemics

Food and skills become the new currency

Scenario 3

LOOKING BACK FROM 2030 THE GRAPES OF WRATH

Daniel McAteer is a young parent from Ferntree Gully in Victoria. A suburb on the fringe of Melbourne, it sits adjacent to the southern section of Dandenong Ranges National Park. He was brought up just a stone's throw from where he now lives and scratches a living as a waste-recycler now that his job with the Chinese import agency, Jade Australia, has folded.

AM I OPTIMISTIC ABOUT THE FUTURE?

Are you kidding? What is there to be optimistic about these days? The whole country, the whole world in fact, seems to be going to the dogs. I half expect a young Mel Gibson to show up any second and tell me the whole of Australia was turned into a giant set for a revived Mad Max film and that none of this is actually real.

I remember so clearly what I was doing when I heard the news that the Chinese economy had collapsed. Within days the American economy followed suit and then everything folded like a pack of cards. It was like some sort of giant poker game where everyone was holding a bad hand and everyone was bluffing like crazy.

It was October 13th – Freaky Friday it became known. I recall it so vividly because the same day the flooding happened in Bangladesh, Victoria sweltered in 43-degree heat for the fifth consecutive week. It was so hot that the roads were starting to melt. All the schools, offices and government buildings were closed and we all locked ourselves in our homes to avoid the deadbeats and delinquents roaming the streets like half-crazed zombies. Heat can do this to people, you know. Some kids were even caught last week trying to steal water from an 85 year-old grandmother. They killed her for a litre and a half of filtered rainwater.

Still, to be honest, some families do actually have it even worse than we do. Country Victoria is now a dustbowl and the fires just burn until they reach the

sea. Most of us around here are sticking together and watching out for each other as best we can.

This tends to put opportunistic outsiders off from coming into our neighbourhood, but people are still having food stolen from their gardens at night and anyone that walks down the street with a sandwich or even an apple in plain sight is asking for trouble.

The schools have got it pretty bad too. My kids are at the local high school, which used to be a pretty good school when I was a kid. Now it's practically under siege from immigrant parents trying to get their kids enrolled and from the local kids trying to steal things. Some days it feels more like Gaza than Ferntree Gully with tribes from the other schools ram raiding classrooms to steal vital supplies and intimidate the teachers and the kids.

What is the government doing about all this? Well to be fair (which is very difficult, believe me) I guess they have got quite a bit on their plate these days. You've got the wave of migrants coming down from China and Indonesia to contend with. In theory, Australia is supposed to be ringed by a giant electronic fence to keep them all out. These people are persistent though and they keep getting through somehow. Anyway, fencing our coastline was a stupid idea. I know it was originally meant to be an employment generator – something to take a bloke's mind off things – but how do they honestly expect us to keep off the beaches in these temperatures?

They say that the new desalination plants along the Great Ocean Road are going to sort the water problem out. They also keep saying that our schools are going to be properly resourced and made safe but they say these things every year. The big companies say much the same thing and also promise the earth but let's face the facts, it was big business aided by politicians that got us into this whole mess in the first place so why should we trust them to sort it all out?

My view is that we should just give up with the politicians and get on with it ourselves. You know, we'll make our own water, grow our own food and generally look after ourselves and our own kind. The other choice for me, I guess, would be to take the family way north and try and live off the land somehow. At least they get decent rain up there.

I read a magazine only last week that was talking about how some of the indigenous communities are running camps to teach us city folks how to survive in the bush. Pretty funny that – I mean we've been ignoring them for years and now all of a sudden they're our best mates.

troubled
fear pessimistic
intolerant
besieged

gated communities
harsh climate
focus on subsistence
flood of immigrants
racial tension recession
food as currency
crumbling society

scarcity of jobs / resources

pandemics
schools as
havens

SYNOPSIS OF SCENARIO 4

The Magic Mountain

In this world, business takes over many of the roles and responsibilities of government and community groups. Business is active in everything from the provision of health and welfare services to education and other formerly public services. Society relies on corporate social responsibility for providing a social safety net, reaching beyond employees.

This looks like an evolutionary change but the result is a winner-take-all society where the underclass is marginalised. Those in employment are the privileged and are well looked after by their corporation. Schools are run by corporations to operate like corporations. People with nothing left to lose create social disturbance.

Australia is relatively strong in an economy dominated by the Asian superpowers. Technology is fully integrated into all aspects of life, although access is not universal.

Some signals of change in this direction could be:

Privatisation of utilities

Government becomes smaller as corporations assume wider responsibility

Increasing corporate sponsorship of schools and school activities with greater marketing and competition in education services

Growth in the role of the media as educator and source of information

Corporations demonstrating greater responsibility for the well-being of employees

Scenario 4

LOOKING BACK FROM 2030

THE MAGIC MOUNTAIN

Jimmy Ng, from Brisbane, is seeking a promotion at his work and this is what he had to say to the Human Resources Director who wanted to know how he felt about his commitment to Brisbane and how his two children were fitting in.

IT'S NOT BAD ALTHOUGH THE KIDS TOOK A while to adjust. The company found us a good school and a nice house to rent until we work out whether or not to sell our houses in Sydney. The real estate market is pretty buoyant due to the strength of the Chinese and Russian markets although most of the Americans seem to be moving back to Florida because it's getting too expensive for them here.

I travel quite a bit in the region so the proximity of the airport makes sense and we've also got access to the beaches. Most of the trouble is further south so while we've got the black card shopping malls it's still safe to go shopping on foot if you want to. However, most of our shopping gets delivered or picked up by Sally, our house manager. She's a real gem, especially when it comes to getting hard to get stuff like lettuce and watermelons.

My job is overseeing expansion across Asia so most of the time I'm buying hospitals in Vietnam and South Korea or looking at ancillary services like medical tourism agencies. Keeps me pretty busy. Automation and outsourcing have obviously changed how the healthcare sector operates. The commodity end of the market is still taken care of at the retail level with drop-in centres in supermarkets. That's what you'd call the middle market I guess. The upper level is dominated by companies like Summit hotels that moved into the luxury healthcare sector many years ago while the bottom end is a bit of a mess. There's obviously a big problem with multi-tiered healthcare but quite honestly you get what you pay for and if you can't afford it that's not my problem.

The family are obviously all platinum hospital members so I don't have to worry about the quality of service although I hate to think how we'd cope if I ever lost my job and we all ended up not covered by insurance.

If I have a worry, I guess it's the fact that the school seems a bit relaxed. They don't take students until they're four-years-old and the day only starts at 7.30am. And then – just wait for this – they waste part of the day teaching prehistoric subjects like ancient history and music. Believe me, these subjects are of absolutely no use these days. My kids are almost ten and twelve. They should be learning contract law, financial management and team building skills. I emailed the teacher about this only last month and brought it up with the principal at our last home visit but so far they haven't done a damn thing. Customer focused? Yeah right. Still, I'll have the last laugh. If my kids don't get top marks this year I'm suing the school for breach of contract. I'll have a word with my development director about withdrawing sponsorship for the new student wellness centre too.

That's the great thing about the new system. Thirty years ago I would have had to endure tedious meetings with the parent-teacher association. Even then, there was no guarantee that anything would get changed. These days, because all the schools are privatised and profit driven, I just phone up the parent complaints line. And if that doesn't work, I have legal redress based on the initial learning contract.

Overall I shouldn't complain though. The Nike sports centre is the best in the state and the Bill Granger canteen is so good it's now open in the evening for parents to grab a bite if they're running late from work and can't pick their kids up until ten.

We've also got a Microsoft computer lab, a Google English centre and one of the latest Woolworths student mini-malls.

In fact the only other thing that slightly keeps me awake at night is the influence of the people my kids meet online. In the old days parents used to know exactly where their kids were and what they were doing. These days we've got no idea where they are online or what they're doing. The old stuff like Second Life and Cyworld were acceptable but the new stuff is really dangerous. We've obviously got all the parental controls installed at home and these filter out undesirable people and ideas but sometimes one of the kids gets hold of a debugged computer and then they can hang out with all sorts of punks.

Talking of sleep, we've got all sorts of solutions these days. Being in the wellness business, I have access to the very latest deep sleep pills. These offer precisely two hours of REM sleep any time of day or night. The kids of course do the opposite – pills to keep them awake all hours. Actually, banging my own drum a bit, one thing that I'm immensely proud of is the sleep memory pills we've just brought out. Pop a pill and, hey presto, one hour of sleep followed by a perfect memory for up to a week. They'll be a real hit with students but they'll also keep people like me ahead of the curve. Like they say, if you snooze you lose.

corporations control
health, welfare,
utilities and education

marginalised underclass

smaller government

strong economy

asian superpower

competitive

globalisation

ambivalent

fully integrated technology

customised biotechnology

vocational innovation

schools

privatised &
profit driven

Can you go on the
new product ideas
or ways of doing
things?

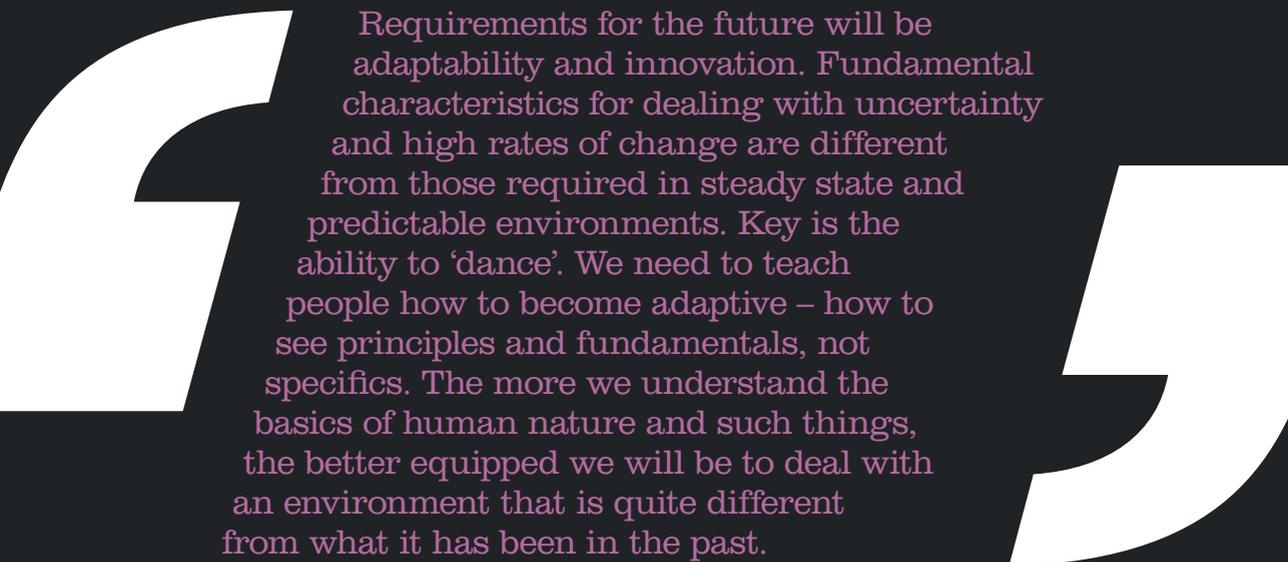


Part 4

Implications of the scenarios for the teaching profession

SCENARIO STORIES PROVIDE NEW CONTEXTS in which to explore complex issues and think about new strategies and new approaches. The process of creating the stories encourages people to challenge their own views and use their imagination to explore what might happen and think about how they might act. Once constructed, the usefulness of the stories lies in their value as a tool for thinking and talking about issues and policies in an open way, for considering their implications and various possibilities.

The four scenario worlds described in the previous section represent alternative environments in which teachers might have to operate. In each world the education environment is different and this naturally has implications for the way teachers and principals work. The Open Book scenario builders used their descriptions of the education environment to identify implications for their work, from the point of view of teachers and principals living in each of the imagined future worlds.



Requirements for the future will be adaptability and innovation. Fundamental characteristics for dealing with uncertainty and high rates of change are different from those required in steady state and predictable environments. Key is the ability to ‘dance’. We need to teach people how to become adaptive – how to see principles and fundamentals, not specifics. The more we understand the basics of human nature and such things, the better equipped we will be to deal with an environment that is quite different from what it has been in the past.

*Thought Leader
John Peterson
President, The Arlington Institute*

UNDER THE VOLCANO

IN THIS DIVIDED SOCIETY, SCHOOLING IS

polarised. The 'haves' have high levels of access to business affluence and influence while the 'have nots' are marginalised. There is a wide variance in teacher salaries, reflecting competition among schools for good teachers or teachers with particular skills. In many schools, teachers find their pastoral care responsibilities take away from their ability to teach effectively.

In this world the teaching profession is highly adaptable and resilient, and well steeped in technological know-how. The impact of a general social mood of pessimism and revolution is countered by the quest for self-fulfilment and personal growth, while the cult of youth and rejection of tradition in favour of innovation make it mandatory for teachers to make use of technologies in extending learning opportunities.

These changes in the nature of teaching have an impact on how teachers are selected and trained. Selection into teacher education courses needs to take account of the schooling divide, with programs needing to recruit students to teach in either the technologically well-endowed elite schools or the poorer schools in socially disaffected areas. A high level of technological literacy is a requirement for all new teacher education entrants, and e-learning is well harnessed in the pedagogical repertoire of university programs. Teacher education programs are dynamic and innovative, preparing teachers to be flexible and innovative.

Once in schools, these highly technologically proficient teachers are faced with varying levels of technological infrastructure and support. Even in poorer schools, they are able to engage students in learning through technology. Their training stands them in good stead for adapting their practice to

meet the different needs of students. The diverse needs of business and the economy generally for skills and technological know-how means the curriculum is broad and dynamic, and there are many pathways to success for students. The measure of schooling is individual success rather than the public good.

Engaging with the local community is less important in the more technologically advanced elitist schools, but is critical in poorer areas where teachers play a strong nurturing role for both students and the community generally. They act as agents of integration, assimilating students from different cultures and backgrounds. The school is an important community centre.

Continuing professional learning for teachers in this world is focused on upgrading technological knowledge on the one hand, and on dealing with social issues and teaching basic skills on the other.

In this world, leadership is a balancing act between responsiveness to the demands of corporate or other sponsors and professional responsibilities. It calls for both the capacity to cater for disaffected local communities and the ability to engage with the pedagogical possibilities of technology to achieve education outcomes appropriate for an innovative society.

Teachers in this world do not enjoy great recognition for their work. Their skills in using technologies for learning are well matched, and generally better rewarded, in other professions, although those who are successful in the competitive market for teachers are held in high esteem. The quid pro quo for this success is the high degree of scrutiny of their performance, as in the corporate world.

The blurring of lines between pastoral care and professional practice tends to diminish the status of teaching.

A FAREWELL TO ARMS

THE EDUCATION WORLD IN THIS HARMONIOUS

society is one where the whole community feels a responsibility for learning. Education is a political priority and enjoys strong community support and resourcing. Learning is individualised and self-paced, although there is a strong emphasis on the social role of schools, pursuing equity and addressing disadvantage. The effectiveness of schooling is judged broadly, with the development of balanced and well-rounded individuals regarded as highly as academic achievement.

The implications of this for teacher education are for programs to concentrate on pedagogy much more than subject knowledge. Teachers are prepared to act even more as facilitators of learning, using technology and innovation to guide students through content areas. More and more, teachers pursue higher qualifications to deal with the rapid advances in knowledge as well as the broad demands placed on them. Pre-service teacher education courses include as an important component ways of relating to families and the community in the interests of students.

Teachers work with a flexible curriculum which allows for individuals to proceed at their own pace, achieving credit when they reach identified milestones. Classes are organised for ability groups rather than by age. Individual learning plans are required for all students, and these are driven by new assessment methodologies. The aim is to extend high performing students and at the same time, make sure that no students are left behind. Online material and e-learning are the order of the day.

In a world driven by innovation and experimentation, teachers constantly need to update their knowledge and skills. Periods of reflection and collaboration with colleagues are valued as professional learning experiences, while formal professional development programs are recognised through certification in a teacher's portfolio of achievement.

Teachers work in close partnership with families to ensure student well-being and attend to the particular needs of individual students. The diversity of most school communities means that schools have an important role as the centre where disparate groups come together with shared interests and values.

Collegiality and collaboration are the touchstones of effective school leadership in this harmonious society. The importance of family life and the stronger presence of women in leadership roles in all aspects of society have affected the image of school leadership, making the role of principal and other leadership roles in schools more attractive, especially with new-found flexibility in arrangements and structures.

Through close engagement with the community, and in a society where ideas and innovation are highly valued, the teaching profession enjoys great trust and respect. Becoming a teacher is seen as a noble ambition.

THE GRAPES OF WRATH

THIS DISINTEGRATING SOCIETY HAS A VERY

different educational world. Schools are social havens amid trouble and disturbance. They operate 24 hours with flexible timetables and curricula. They do their best to contend with the vicissitudes of the harsh climate, providing coolness in the heat, warmth in the cold and dry in the wet. They are built to be environmentally sustainable and energy efficient. Their focus is on the survival and sustainability of the community and teachers are expected to model inclusiveness, tolerance and understanding of a wide variety of cultural backgrounds.

With schools increasingly becoming the providers of social, pastoral and health care, teacher education programs have had to adapt. They provide training in health, welfare, and psychology, in addition to the professional skills and knowledge required for teaching. This serves to increase the length of training and diminish its attractiveness to many.

Teachers accept this community leadership role and demonstrate skills in teamwork, both with teacher colleagues and with other professionals and members of the community. The 24-hour day and flexible timetables make huge requirements for teacher collaboration, communication and flexibility. Teachers show their creativity in using limited resources and work with their students and community to build a strong skill base as well as a sense of optimism and hope. Technology is a given in the delivery of programs in school – even the poorest schools have access to sophisticated technology. School success is judged in terms of social cohesion and acquisition of basic skills.

Programs on pastoral care, managing violence, social interaction, behaviour and conflict management, drugs and health are the greatest requirement for teachers' professional learning. These tend to be delivered online, for use by individuals or teams of teachers in their own time. Programs in learned

optimism, resilience and values are also much in demand. Training in cultural understanding and self-sufficiency is also valued in this harsh world.

Some professional development programs of this kind are targeted at both teachers and the community, fostering better partnerships between the school and community. As the centre of their community, schools are increasingly used for such purposes.

As a result, principals have a leadership role well beyond the walls of the school, being called on to champion their community and fight for needed resources. Managing the enterprise that schools have become, with a diverse range of functions and wide range of specialist staff roles, requires principals to have strong leadership skills and to share leadership with others. The focus of school leadership has shifted from educational leadership to management of a complex social environment.

The significant role of schools as respected and valued institutions in an otherwise crumbling society means that teachers are held in high esteem, although this has more to do with their social role than their professional practice. Their status is high, particularly in their local community.

There will be an increase in serious family breakdown at one end, and those doing well at the other. The gap between those doing well and an underclass is widening and will become much harder to shift. Constantly looking at ‘in your face’ affluence all the time by the have-nots will impact on depression levels.

*Thought Leader
Mary McLeod*

Director, National Family and Parenting Institute, UK

“ There will be social disorder and turbulence as a consequence of social distress. We ought to be prepared for quite a lot of it, but it is difficult to foresee how severe it will be and how long it will go on.

*Thought Leader
James A Knustler
author of The Long Emergency*



THE MAGIC MOUNTAIN

IN THE CORPORATE SOCIETY OF THE MAGIC

Mountain, education is mainly privately owned, resulting in a hierarchy of wealthy and wealthier schools, depending on the success and fortune of their sponsoring corporation. Schooling for those not part of the corporate world is haphazard, although corporations provide some support for schools in low socio-economic areas as a way of giving back to society. Governments no longer have a major role in school resourcing. Faith-based schools are flourishing, providing free education for society's underclass.

Corporations exercise increasing influence over the direction of teacher training in universities, supporting technology, innovation and the exchange of ideas. Alert as they are to the global business environment, corporations are equally attuned to education developments internationally and are responsive to them, although the focus is on teachers achieving measurable student outcomes. Teacher trainees are often sponsored through their training by corporations and are bonded for a period to teach in the corporation's schools.

Just as creativity, innovation and critical thinking are valued in the corporate world, so too are they the focus for teaching in corporate schools. In line with scientific developments, schools emphasise the early childhood years. Schooling is competitive from an early age, with students assessed and streamed according to assessments of their potential at key stages.

The need of business for highly qualified and skilled employees and strong competition between schools means that teachers have to focus above all on measurable student achievement. They are judged on how well their students achieve their potential. Common national standards exist for assessing teacher performance and these are applied by the individual corporations.

The responsibility of the corporation extends to supporting teachers' continuing professional learning. Corporations' global connections open up wide ranging opportunities for professional learning, much of it offshore. The main focus for professional development is on achieving student outcomes, although keeping up with technological change and new ideas and knowledge is also promoted.

The essence of community is the corporate environment. Schools operate within this environment, where the school and the corporation share a mutual interest in high academic achievement, creativity and social adjustment. In this way, successful schools are a contributor to successful business. They are a critical player in corporate success.

In corporate schools, the administrative and management functions of the principal and school leadership team are shared with the corporation, leaving the school leadership greater scope to concentrate on education directions, within the confines of the corporate ethos.

In this competitive and privatised world, where competitive advantage lies heavily in knowledge, skills, ideas and innovation, good teachers are highly sought after and well rewarded. Teachers are regarded as the education professionals in the segmented world of business and teaching is a high status profession.



Part 5

Learning from the future

THE FUTURE ENVIRONMENTS OF THE FOUR scenario worlds are as complex and fluid as society today. Each world combines desirable and undesirable characteristics. Desirable features may be easier to identify in *A Farewell to Arms* or *The Magic Mountain*, but some virtue can be found even in the dystopian landscape of *The Grapes of Wrath*.

Schooling looks different in each of the worlds. In both *Under the Volcano* and *The Magic Mountain*, it has become more divided as governments withdraw from school resourcing and private wealth becomes a critical element in determining access to an adequate education. In *The Grapes of Wrath*, schooling is valued but schools do not have the resources to provide students with rich and stimulating learning programs as the extremes of climate change have sapped resources and placed society in the middle of an environmental crisis.

In contrast, the harmonious society of *A Farewell to Arms* positions schools as valued and highly supported institutions. Schooling is effective in promoting social equity and in helping young people to overcome social disadvantage. Teachers have high status within society.

In broad terms, schooling within a pluralist, democratic society is expected to provide learning that helps to strengthen civil society and deliberative and participative democracy, to promote individual development and social cohesion, to develop economic prosperity and environmental sustainability and to prepare young people for active global citizenship.

Action today, responses to aspects of the environment in the present, will exert a positive, neutral or negative influence on future society. Because of this, none of the scenario worlds are likely to eventuate in the way they are described. Change is more likely to be felt as tensions that will play out in different ways:

environmental sustainability versus environmental degradation

equality of opportunity versus social inequity

social harmony versus social fragmentation

education as a public good versus education as a private asset

education as vocational preparation versus education as preparation for an enriching life

technology acceptance versus technology push back

inter-generational harmony versus the generations divided.

These tensions are not mutually exclusive. Some of the less extreme environmental degradation features of The Grapes of Wrath and some of the corporatised schooling features of The Magic Mountain could readily fit into and help explain the emergence of the divided society of Under the Volcano. Lessons from the past and possibilities for the future as described in the four scenario worlds indicate that the actions now, of policy-makers, professionals and planners, have a bearing on how the future evolves. Action and inaction in the present and immediate future intervene and influence the shape of the future itself.

Some of the possible implications and learnings for the teaching profession from across the four scenario worlds are briefly discussed below for the light they shed on important dimensions of teacher professionalism – teacher education, professional practice, community engagement, professional learning, leadership and professional identity.

TEACHER EDUCATION

Consistently high quality teacher preparation is an important professional and policy objective, fundamental to quality teaching and school effectiveness. However, if society in 2030 has the characteristics of the Under the Volcano and The Magic Mountain worlds, it is likely that a hierarchy will appear in teacher education. Only the best-trained teachers would be considered for positions in the well-resourced schools, with their more attractive working environment and higher salaries. This would mean stiff competition among universities on the basis of the quality of their teacher education programs and could lead also to a market in additional, specialist pre-service training to give candidates an edge in applying for vacancies in a 'better' school. Less qualified and capable teachers, or teachers graduating from the less well regarded programs, would typically end up teaching in the poorer schools.

There is no question that in all futures, technology will influence and alter teaching practices, as it does now. Leading edge technology and technological applications will be a cornerstone of teacher preparation, with teacher educators as well as teacher education students all having high levels of technological literacy. Teacher preparation courses will be judged on how well they prepare teachers to exploit the potential of technologies for learning and teaching. The highest quality programs will attract significant investment – depending on the world, this will either be public or private.

In the worlds divided between the haves and have-nots, readily available information and communication technologies could provide the tools for teachers in poorer schools to significantly increase learning opportunities for students. These teachers will need to be skilled in planning and using technology as a mainstream pedagogical technique, to give the guidance and direction necessary for effective learning in this way.

Teachers can be a powerful force for promoting egalitarianism on the one hand or elitism on the other. In order to avert the more divisive pathways characteristic of *Under the Volcano* and *The Magic Mountain*, it is important that teacher education courses promote the values, ethics and commitments of a pluralist, democratic society.

In all worlds, teachers have to be well equipped to respond to and meet the needs of students with different abilities and interests and students who come from different social and cultural backgrounds. They also have to have the skills to establish harmonious and inclusive learning environments, whatever their school environment, and the wherewithal to engage confidently and professionally with parents and the community. This highlights the importance of ethics, values and social responsibility as pervasive components of teacher education.

PROFESSIONAL PRACTICE

Motivating students to learn and enjoy learning will remain a major task for teachers. If external factors such as the residualisation of schools in poorer neighbourhoods (as in *Under the Volcano* and *The Magic Mountain*) and the struggle to survive (in *The Grapes of Wrath*) become prominent features of future society, then young people and their families will experience a sense of hopelessness and resignation. Teachers and principals will have an important role as messengers of hope and optimism, instilling a sense of pride and purpose and commitment through the way they teach and engage with students and their families and through the programs they provide.

In some possible futures, schools will be operating in environments characterised by individuals leading increasingly separate lives while at the same time looking for greater connectedness through technology. In such a world, teaching practice will need to

encourage a sense of belonging and demonstrate the value of being connected to others.

The development of students' personal and interpersonal skills and their ability to work collectively to problem solve and engage with real world issues continues to be a fundamental responsibility of the teacher.

Teachers would not only need to teach environmental sustainability, social justice or democratic values, for instance, they would also need to be leaders and activists within the school community on such issues, educating about them at the same time as demonstrating their personal commitment.

More personalised learning will increasingly be a feature of schooling in most suggested futures. Teachers will need to rise to the challenge that this presents, displaying flexibility, creativity and collaboration in their teaching practice, with expertise in the use of technologies for diagnosis, delivery and assessment and access to other professional support where individual needs require it. In order to ameliorate the drift to the inequalities of the corporate or divided society, teachers will need a strong focus on the outcomes for all students, so that they all have the same opportunities to flourish and thrive.

These suggestions have implications for the curriculum and the time allocated to teaching 'soft skills' such as the capacity to work in teams to identify and solve problems and to relate to people from diverse cultures.

In the futures where society becomes more polarised, fractious and threatened by extremes of climate, teaching young people the attitudes and skills needed to assist with improving their communities will be increasingly important. What students value and do (their contributions to improving society), rather than what they know, could emerge as the main focus for assessing student performance.



“
We should gear education around tasks of preparing young people to be competent and confident and prepared to meet the requirements of their time. They need to be self-actualising people rather than passive consumers.

*Thought Leader
James A Knustler
author of The Long Emergency*

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COMMUNITY ENGAGEMENT

Making connections with parents and the broader community and engaging them in the work of the school will be increasingly important in worlds that are highly fragmented along socio-economic lines. Whatever futures eventuate, community engagement is a vital dimension of successful teaching. The notion of the school as the hub of a community is however accentuated in worlds where other community institutions are disintegrating, at least for some parts of the populace.

Building the trust and partnerships essential for effective learning requires teachers to know and understand their students and families.

In some futures, schools will have a wider sphere of influence and will need to be more active and innovative in contributing to community building. Communication will be a major challenge. Traditional approaches to engaging parents are less likely to be effective. New approaches will be needed, drawing on the potential of new communication processes including social networking. Communication in all futures will need to be more responsive to particular parent and community needs, using various avenues and styles of communication and taking account of the many competing demands for attention.

While different futures have different implications for the way that community-school partnerships are organised, making connections with parents and agencies within the broader community will continue to be a priority for teachers and principals in whatever world eventuates.

PROFESSIONAL LEARNING

What teachers learn about teaching in their pre-service courses and through experience needs to be continuously advanced as their careers progress. Isolation and conservative expectations can constrain teachers in their drive to continuously improve their mastery of effective teaching and assessment practices. Regardless of the external context, however, continuing professional learning is central to ensuring that teaching is effective.

All of the scenario worlds require teachers to be highly effective in their job. In the competitive climates of *Under the Volcano* and *The Magic Mountain*, schooling is a commodity purchased by the wealthy. Whether teachers are in the highly resourced schools or the residualised poorer schools, the expectation is that they do the best job possible to enhance the future opportunities of students. The harmonious society of *A Farewell to Arms* and the disintegrating society of *The Grapes of Wrath* may be poles apart in terms of their social conditions, but the expectation is the same, that teachers will be highly effective and responsive to local students' needs.

The quality of professional learning and the opportunities for teachers to engage in it will be critical factors in determining the effectiveness of teachers in whatever future unfolds. Making time available for professional learning is not an option for schools but a necessity so that in a changing world, teachers' knowledge and skills are continually improved and refreshed.

The greater connectedness apparent in all the future worlds – between people, events, ideas and disciplines – means that professional learning for teachers and principals will need to incorporate a breadth of experiences and appreciation of complexity and change. School education will be more effective

if opportunities for professional learning provide a greater understanding of the world and the role of creativity and innovation in addition to advancing knowledge of discipline content and pedagogical practices.

New occupations are continually emerging as society moves further along the path towards a service and knowledge economy. Teachers need to be abreast of these developments so that schooling gives students the knowledge and skills required by the new workplace. This may require teachers to move out of school into the workplace for some of their professional learning.

Sources of professional learning may vary, depending on how the future evolves, and the focus of programs offered to teachers and principals will also vary. Programs may become either more locally or more globally centred; they may focus on updating knowledge or upskilling processes; they may be driven by students' educational or social needs; and they may be openly available or be competitive and difficult to access.

New technologies will be ubiquitous and it is likely that the ICT industry will play a more central role in professional learning of teachers. In no future will teachers be able to operate in 'catch up' mode in terms of emerging technologies and how they can be used to promote student learning.

Participation in online, global teacher learning networks is likely to become a commonly used avenue for identifying emerging 'promising practices' and sharing teaching ideas and suggestions.

These possibilities point to a wider realm of professional learning sources, providers and methodologies but all attest to the need for ongoing professional learning to be embedded in school culture.



It has led me
to be much
more creative
in my thinking
about change
in education and
other strategic
possibilities
within the school
community.



Scenario Builder

PROFESSIONAL LEADERSHIP

Each of the scenarios presents sharp challenges for the leadership of schools. The leadership of the school, through collaboration with teachers and other stakeholders, builds the culture of the school and establishes its vision and mission. Leadership is also a major factor in connecting a school's programs with community expectations and ensuring that the school is well regarded within its community.

If all communities are to have a school that can meet the learning needs of young people, principals and teachers in leadership roles will need to be strong advocates for needs-based resourcing of schools and accept a moral obligation to assist their colleagues to improve schools in poorer communities. Collaboration and support among school leaders rather than competition will better serve the longer-term interests of schools and students. Leadership networks are one way of facilitating this collaboration and promoting the professional conversations that will be so critical to shaping sound leadership practices. Cooperative and resourceful local partnerships will also contribute.

In each of the worlds, principals will have a key role in helping teachers interpret and understand changes and pressures and the implications of these for the well-being and educational development of students. Providing what is essentially a lens through which to view the world and what is happening in schools, leadership will require high-level capabilities in analysis and synthesis.

Supporting and modelling the use of technologies for student learning and for continuing professional learning will be an important responsibility of school leaders in all likely futures. Effective principals will be role models for innovation, creativity and endeavour, both in the school and broader community. Leadership will have an important role, for example, in modelling the values and behaviours that are critical

for individual well-being and social cohesion. The more disaffected and fragmented the future, the more important the role of school leadership in nurturing hope and optimism and valuing learning.

The growing complexity of schooling characteristic of all likely futures suggests that greater sharing of leadership responsibilities is inevitable. The balance in the principal's role between leadership of learning, management of the school enterprise and partnering with the outside community will shift from world to world, but all will continue to be integral requirements of leadership. Survival as a principal will mean sharing the responsibility, building up a leadership team and fully engaging their skills and talents, allocating roles to non-teaching staff and maintaining a focus on shaping education directions for the school.

Insights from leadership in other professions will continue to be valuable, whatever future transpires. Schools as social institutions will continue to benefit from leaders' exposure to broad experiences and the broader external environment.

PROFESSIONAL IDENTITY

The public views teachers as playing a very important role in preparing young people to function effectively in a rapidly changing society. In none of the four 2030 scenarios is there any suggestion that schools are replaced by online learning centres or that home schooling will supplant the role of the teacher. The role of the teacher in society will remain important.

Recognising that importance, and sustaining teaching as a high status profession that makes an essential contribution to society, requires a collegial approach. Even in the worlds of Under the Volcano and The Magic Mountain, where the teaching profession is divided into those who work in the better schools and those who do not, there is more that unites teachers than divides them. In the most dislocated



with Al Naseri
Community Profile

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Dear Students

In this (Islamic) lesson, you are going to read about the Islamic community and the role of the mosque in the community. You will be asked to think about the importance of the mosque and how it helps the community in many ways. You will also be asked to think about the role of the mosque in the community.

The staff at Al Naseri Islamic Centre are very happy to have you here and to help you learn about the mosque and the Islamic community. We will be working with you to help you understand the mosque and the Islamic community in many ways. We will be working with you to help you understand the mosque and the Islamic community in many ways.

A good example of the Islamic community is the mosque. The mosque is a place where Muslims go to pray and to learn about the Islamic faith. The mosque is also a place where Muslims can meet and talk to each other. The mosque is a very important part of the Islamic community.

The mosque is a place where Muslims can learn about the Islamic faith and the teachings of the Prophet Muhammad. The mosque is also a place where Muslims can meet and talk to each other. The mosque is a very important part of the Islamic community.

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“Can a good school become a great school? We can choose.”

Dapto High School in southeast New South Wales has for many years been a good school, providing a confident, competent and happy environment for about a thousand students.

Dapto is on the cusp of enormous change. Developers have their eye on the greenfield sites surrounding the school and 20,000 home sites are to be released over the next 20 years. Coal mines are closing, and sometimes opening again, thanks to climate change, transport links are being rejuvenated. With an influx of population and new industry, the surrounding community will be transformed. The existing school buildings and infrastructure are tired, in need of refurbishment.

Inspired by his participation in the Open Book Scenarios project, Andrew FitzSimons, principal of Dapto High since 2004, has engaged his school community in imagining the future environment for the school and future needs. What will life and learning be like for Dapto High School students and the local community in 2030? The world will have shifted axis, the surrounding community will have grown and changed, connections with the wider world will be sharpened.

Hence, wwv@dhs: taking a wider world view at Dapto High, to prepare for and shape that future.

The idea is to have a direction, not a destination. The school community is enthusiastic about looking to the future to inform what they do now.

They welcome the opportunity to focus on the future, to look ahead rather than rely on the past and to see the school having a place in the globalised environment of the next 20 years.

The focus on the future has become an enriching element in the school's learning culture. Hardworking teachers and students are embracing the call to work smarter and even harder. Learning is at the heart of everything, and decision-making is informed by research, evidence and data. Information and communications technologies are fundamental to teaching and learning and transforming day-to-day tasks.

Teachers are energised by engaging with the future – no longer resisting or ignoring but intimately involved, articulating their teaching and learning challenges, talking about their learning and modelling high expectations of students. Students are mobilised by being asked to articulate their own learning achievements and challenges, to think about where they are heading, what they will be doing in 20 plus years time.

Students, staff and the school community work together to model sustainability, a critical part of engaging with the future. A focus on climate change is central to the curriculum. Teachers and students have become ‘carbon cops’, monitoring and minimising water use, cooling, heating, lighting and printing.

Students are encouraged to ride bikes or scooters or even roller blade to school. These precious forms of transport are safely housed during the school day in a secure purpose-built ‘skate shack’. The school houses a working farm, and the growth of crops and animals is part of the curriculum. A stressed and damaged creek running through the school grounds is now receiving increased care and is a significant curriculum focus. Ecology lessons have never been so practical or so much fun.

To prepare for the future, the teachers, students and school community are working together to create a democratic, inclusive, responsive and resilient environment.

The future focus encapsulated in wwv@dhs is acting as a catalyst for broadening horizons and opening new possibilities. Dapto High School graduates will have a global perspective and will be well prepared to be citizens of the world of 2030.

How does a good school become a great school? Having a heightened awareness of emerging influences and the interconnecting strands shaping the future opens the door to opportunities and insights. Whatever form the future takes, engaging with it is fun and builds a resilient, resourceful and enterprising community.

Andrew FitzSimons, scenario builder and principal of Dapto High School



of the four societies, *The Grapes of Wrath*, it is the knowledge and skills of teachers that will make a difference to the lives of young people and contribute to a more desirable society. Teachers in all futures are bound by a shared professional commitment to giving students the best education possible for them to lead fulfilling, purposeful and productive lives.

Each of the four scenario worlds points to a future in which there will be much greater mobility and movement in and out of professions and vocations. For teaching, this means that the profession can no longer rely on building up a professional ethos, ethics, standards and collegiality through lifelong involvement in education. The profession will need to be more explicit about its values and practices, as a means of transferring knowledge and understanding more quickly to those who come into the profession for shorter periods of time.

To meet society's expectations of the teaching profession – whether the emphasis is on delivering skills or innovative thinking and creativity or well-rounded and socially adjusted individuals or adaptable and compliant citizens – that strong professional ethos and commitment is needed. Society is well served by a teaching profession that sees the value of education and uses their specialist knowledge and expertise to enable individual students to reach their potential.

The specialist knowledge and expertise teachers and principals have, enriched by their experience and continuing learning, can contribute to strengthening the profession as a whole. Celebrating achievement and excellence in the profession can be inspiring to others and attract high achievers into teaching at the same time as it supports and nurtures practising teachers. Maintaining and nurturing the status of the profession in this way is essential to its continuing development and renewal.

The teaching profession needs an enormous investment, not just in the image, but in making teaching matter again. My fear in the great divide is that the teachers become the janitors in the system. They lose their social status, their income, and they teach for a world that is no longer relevant.

Thought Leader
Wendy McCarthy
Director, McCarthy Management



Coming together as professionals regardless of school context, in joint professional learning or conversation, leads to shared knowledge and ideas, builds up professional identity and establishes a rich evidence base to inform policies for quality schooling. The voice of the profession has an important contribution to make in shaping education directions and practices to meet future needs, whatever the future holds.

Systems of communication and participation across the profession will be challenges as they will be for other areas of society. Traditional approaches to professional association may be less relevant in the future. The profession will need to explore a range of alternative approaches and mechanisms encouraging communication and participation as part of maintaining a strong profession and professional identity.

USING SCENARIO BUILDING IN SCHOOLS

Futurists and scenario planners contend that alternative futures can be imagined. Engaging with the future creates the capacity to anticipate it, raise awareness about it, avert it and change it.

This seems a fairly compelling reason for engaging in scenario building. While the predictive accuracy of scenario worlds may be of interest, that is not their real value. Scenario building does not enable planners to 'know' the future. It will, however, help planners open their minds to other possibilities, to anticipate opportunities and threats and to plan accordingly. Scenario building helps planners shape the future rather than just respond to it.

Within the school context, scenario building can be used to stimulate discussion about the uncertainty and unpredictability of change over the long term and about the nature and direction of change in the shorter term. Scenario building will assist teachers to consider the future of learning and reflect on important

professional or local school issues. Exploration of changes in the broad school environment can throw light on approaches to professional questions such as:

What are the important elements of training for new teachers?

What knowledge, skills and attributes are necessary to be a highly effective teacher?

How do schools best engage with parents and the local community?

How can teachers' skills and knowledge be kept up to date?

What are the capabilities necessary for good school leadership?

What contribution can teachers and principals make to the development and renewal of the profession?

Scenarios can help educators to consider the implications for schools, teaching and the curriculum of globalisation and the internationalisation of the workforce, the rapid growth of China's and India's economies, the emergence of new technologies, and the growth of knowledge about how the brain functions and how we learn.

Future scenarios can assist teachers to set aside assumptions about what the role of a teacher is and what teaching and learning need to take place. By exploring future possibilities and thinking about what it will take to become a great school in the future, teachers can audit their planning and programs and realign their activities to make them as consistent as they can with their preferred futures. What teaching in the future will look like will be, to a large extent, a product of what teachers individually and collectively do in producing and implementing policies and of the moral compass that drives teachers' work.



APPENDIX

EXPANDED DESCRIPTIONS OF THE FOUR SCENARIO WORLDS

UNDER THE VOLCANO

This is a world in which ...

Society and culture

There is a general feeling of unease across most of the country. Some intellectuals see the societal divide as a tinderbox, although the centralised media rarely comment upon it. Politicians don't speak of the general mood of pessimism either, partly because it is hard to measure and also because, as members of the managerial elite, politicians are shielded from many of the realities endured by ordinary people.

The cult of youth is ubiquitous and nowhere is its vitality felt more than in the world of ideas. The new is 'news' and oriented to the pleasure of experiencing a world which is full of new opportunities – mostly man-made and all testing our ingenuity to find a new 'angle'. Tradition is widely rejected in favour of innovation.

Both blue and white collar crime is rampant. The courts and gaols are stretched to their limits. Detention centres, once used to house the illegal immigrants that the very powerful police keep excluded from the country, are now filled to overflowing with 'domestic' prisoners awaiting trial.

Family life

Households are hectic. For families of the managerial elite, the day starts early and ends late. Children rarely see both parents during the week and many of the values that used to be taught at home have now been delegated to schools and other institutions. Life is busy for the other half too as they struggle to keep afloat and keep up with the Jones's and the Fenton-Jones's. Traditional nuclear family life still exists, especially outside

of the major cities, but it is becoming increasingly rare. Blended families, extended families and single-parent families are now commonplace.

Schools

There is a great divide. If you can by-pass poorer schools, you do. This means sending children to exclusive schools but it also means private tutoring and cheating. Some of the poorer schools do well academically despite a lack of resources but they are generally the exception.

There are still good local schools, and these are fiercely fought over, but they tend to struggle due to inadequate funding and poaching from the private sector. There is also the issue of hyper-parenting. Parental aggression and litigation has become a major problem in both sectors but especially in the hyper-competitive private sector and feeder schools.

Overall the style of education remains fairly vocational, not least due to the pressure exerted by parents and even the students themselves.

The environment

Much of the early panic over climate change has subsided, partly because some of the more radical forecasts have failed to materialise and partly because we have learnt to deal with environmental change through a mixture of new technology and strict regulation. Nevertheless, there remains a strong awareness of the importance of environmental and sustainability issues and shortages and constraints are now an accepted part of everyday living, especially in certain areas and income groups. Hence there is an ethical consciousness although individuals often display contradictory and conflicting behaviour. Bureaucracies for industrial development and for environmental management are very strong, in

marked contrast to those for human services (health, welfare etc), which are weak.

Science and technology

Technology is everywhere. It is cheap, mobile and always on. As a result people are connected locally and globally, which in turn drives transparency and ethics. Despite this, there are significant generational and social differences, especially when it comes to getting the very latest and greatest gadgets. Technology now means that surveillance is a fact of life and everything is continually monitored and measured. Not surprisingly, the wealthy use every trick in the technology book to maintain their incomes and status.

The use of performance and memory enhancing drugs is commonplace and the recent appearance of genetically modified and enhanced children is creating all kinds of ethical issues. The new generations are obsessed with technology and see it as a cause for optimism about the future.

Politics

A single party dominates domestic politics although the opposition does score occasional victories when issues like the environment become localised. The main swing factors are still the economy (especially tax and interest rates), immigration, crime, transport, health and education.

Elections are increasingly being fought and won over the issue of happiness. This is essentially the idea that money is no longer everything (once you have it). Therefore the balance between work and family life has become more important and so too has the balance between private profit and environmental and societal health.

Internationally, United States and Asian influence is still strong although

local economic, environmental and security issues tend to trump regional and even global agreements. Globalisation is in the form of transnationalisation by corporations in almost seamless association with economic rationalist governments through many bilateral links rather than truly global networks. This new ethical consciousness – originally created when climate change entered the public mind – is now becoming evident in the beginnings of local ‘collectives of concern’ (not yet comprehensive communities), alternative limited-issue political parties, new forums (real and virtual) and new media outlets.

Economics

The economy is good but uneven. Some industries do very well while others struggle in the face of low-cost competition from abroad. There is still a significant skills shortage but artificial intelligence and robotics are making up for this in many areas. The personalisation of products and services is a major trend, as is user-pays, which means that people either fly low-cost or business class (metaphorically speaking). Much of the Gold Coast is now owned by the newly rich Russians, Indians and Chinese and there is a major bush/city economic divide.

A FAREWELL TO ARMS

This is a world in which ...

Society

Australia is enjoying something of a cultural renaissance with immigrants, young people and older people all contributing fresh thinking and ideas across all areas of society. This is driving innovation and experimentation in business, the arts and education. Even the media has shifted away from its metropolitan bias and is now more locally embedded and positive about everything from immigration and climate change to the value of children and senior citizens.

Family life

Families are seen as vitally important to the health of the nation. The idea of the family has also been extended to include older generations and there is more of a balanced feel across society, especially since married men are now subject to legislation about how much time they spend at work. Technology is an important component of family life but there has been some degree of technology pushback. Individuals and organisations are realising that a balance is required between a modernity in which things are sped up and people are connected virtually and traditional communities where there is a sense of history, relaxation and physical connectedness.

Schools

Schools are well respected and are at the very centre of the newly-energised local communities. As a result there is a high degree of trust in the education establishment and this enables students and teachers to experiment with a number of radical ideas, particularly in relation to the use of technology.

Nature

In this world, the problems of climate change and drought have been largely dealt with through a combination of community action and the widespread development of technology. Clean energy has largely taken over from fossil fuels and local sustainability initiatives mean that many local communities are self-sufficient in terms of power, water and food production.

National and state politics

Australia's leaders have forged strong regional alliances covering everything from trade and economic relationships to defence and security. Many of the historical animosities have evaporated and there is a new sense of co-operation and harmony in the region. China remains a key trading partner but the country has also developed meaningful relationships with a number of other key nations. Domestically, politics has become more balanced and empathetic towards the needs of all sections of society, not only because there are many more female politicians, but also because society is now dominated by what can broadly be termed 'feminine values'. The public good is now also defined more in terms of social and environmental impact rather than the wishes of the majority.

Domestic economy

Despite a few isolated water problems the economy is strong and there has been a further shift towards primary industries and services.

Large-scale manufacturing is weak but small to medium-sized companies are flourishing due to a focus on innovation and quality. Collaboration between companies is high and so too is the involvement of customers and

suppliers in the product development process. The decline of many large factories has caused localised employment problems, especially when these problems coincide with high levels of immigration, but local communities usually sort these problems out without interference from national government.

Science and technology

Australia's leadership position in so many of the critical new climate and resource-related industries have made the country the envy of the world. Indeed Australia has been flatteringly described as the new California because of the mixture of opportunity-minded immigrants and sunshine. Venture capital is flowing into the country and many scientists who left Australia for the United Kingdom, United States, China and India ten, twenty and even thirty years ago are returning.

THE GRAPES OF WRATH

This is a world in which ...

Society

Life is a constant struggle. Water is scarce, which in turn limits the availability of food and makes many parts of rural Australia almost unliveable. It is a culture of make do and mend. There is still some money about, mainly in pockets, which fuels opportunistic street crime and burglary. There is also a significant urban/rural divide as those that can move to the security of gated urban communities. The bush and the outback are left to families who can't afford to move, together with the odd crazy person that has seen Mad Max too many times.

Family life

The fortress mentality is even more noticeable at the family level where extended kinship provides, at least the perception of, comfort and security.

Urban tribes develop along the coast of Australia and people collect their own water and grow their own food in an effort to save money and be self-sufficient.

Schools

Schools are flooded with children from drought-affected areas and struggle to keep crime and xenophobia outside the school gates.

Resource scarcity means that schools find it increasingly difficult to operate normally and senior students find the education experience fairly pointless given the lack of jobs and the dismal outlook for the planet.

Nature

The battle against climate change is not going well. The weather is increasingly severe and unpredictable. Flooding and drought are commonplace, causing the widespread dislocation of people and migration on an almost unprecedented scale.

Conversely, some of the remotest and poorest indigenous communities seem almost immune to these changes and the outback is full of foreign television crews, pharmaceutical companies and management consultants studying everything from indigenous medicine and bush tucker to tribal law.

National and state politics

National government is focused on security and job creation but politicians at both state and federal levels have other problems to contend with. The economy is a washout, the housing market is in freefall, illegal immigration is at an all-time high and there are race riots in Queensland. Water theft, the defining crime of the 21st century, is a major issue.

Infrastructure crumbles away as the funds necessary to maintain services like schools, police, hospitals and transport are inadequate or the private companies responsible for managing these public services go broke.

Domestic economy

Like everywhere else, Australia is hit by a recession although the local drought is in many ways far worse. As a result the outback and bush are increasingly unliveable and there is a significant, if reluctant, drift back to the major cities, which decimates rural economies.

Globalisation ends and multinational companies struggle in the face of local patriotism and economic protectionism.

Science and technology

Personal technology is largely irrelevant as the focus is on the need to survive. New technologies are created but few people have much money to spend on them and most development is focused on life-saving and planet-saving science.

THE MAGIC MOUNTAIN

This is a world in which ...

Society

There are few, if any, restraining forces on business in this world. Legal restrictions are few and far between and social and ethical accountability is weak. Global corporations, which now include publicly listed schools, stalk the planet in search of profit opportunities almost unhindered by national politics or regulation. On the plus side, ideas like corporate social responsibility, the triple bottom line and sustainability are now fully integrated into business practice although this is often little more than short-term self-interest and good marketing.

Family life

Divisions within society are still partially based upon education and income but the main distinction is employment. Corporate tribes have largely replaced geographical and ethnic loyalties resulting in a crisis of Australian identity. For the elite, jobs are highly mobile and families are often forced to pack up and move on to wherever the next posting occurs. In contrast, families that are not part of this privileged world, for example, those living in rural communities, tend to stay in one place and make do with whatever is on offer in terms of education and employment. Even child labour is making a comeback in some areas as families struggle to pay the bills.

Schools

Schools are run like corporations and education is just another market. Monitoring and measurement is endemic and return on investment is now a standard educational catchcry. As a result of the free market, there are many different models of education to choose from, although the elite tend to play it safe and stick with tried and tested methods that offer a vocational focus. School brands are now international and outsourcing is widely used, especially in the cost-conscious public sector. There is significant polarisation between those schools that are able to attract parental and corporate sponsorship and support and those that cannot. Therefore, some schools are well-funded while others struggle to provide even the most basic learning tools and resources.

Nature

Climate change and resource shortages have made corporations and individuals more responsible in their consumption practices but overall co-ordination is weak. This results in periodic resource panics and huge spikes in the cost of some materials.

Climate change has affected some regions more than others but most developed nations have been able to spend their way out of trouble with giant civil engineering and infrastructure projects. Poorer nations have been less fortunate and rising sea levels have created significant refugee and migration problems, particularly in Southeast Asia. Clean energy and non-fossil fuels are being developed but progress has so far been slow because new technologies have allowed the giant energy companies to scrape every last drop of oil from the barrel.

National and state politics

Politics is dominated by free-market radicals who believe that business should be left to run everything. There is a small minority of social radicals who believe that the state should look after the interests of the less fortunate, at the least, but the free market ethic is dominant. Corporations control the political and media agenda and there is a flow of people and ideas between the upper echelons of business and politics. Local politics is now almost non-existent and while there are other political groupings their influence is marginal at best. Equally, state politics is significantly weakened as it is being squeezed by global business interests.

Domestic economy

The global economy is dominated by the Asian superpowers, particularly China and India. Australia does relatively well as a supplier of resources to these new superpowers but the economy is regularly upset by resource scares and terrorist attacks on crucial infrastructure and services.

Science and technology

Technology is a key driver of growth globally and is fully integrated into every aspect of Australian daily life. However, access is uneven, further concentrating power into the hands of the elite. Crucially, access to technology also determines control of the media, which in turn controls the nature of the societal debate. Hence anti-capitalist rhetoric is limited to a handful of e-action websites and online magazines.

Those with the money – primarily business leaders and their families – have access to various performance and life enhancing technologies ranging from memory downloads to anti-ageing treatments.

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